

**Security Council**

Distr.: General
4 June 2001

Original: English

Letter dated 23 May 2001 from the Secretary-General addressed to the President of the Security Council

I have the honour to refer to article 12, paragraph 3, of the Statute of the International Criminal Tribunal for the Prosecution of Persons Responsible for Genocide and Other Serious Violations of International Humanitarian Law Committed in the Territory of Rwanda and Rwandan Citizens Responsible for Genocide and Other Such Violations Committed in the Territory of Neighbouring States between 1 January and 31 December 1994, which reads as follows:

"In the event of a vacancy in the Chambers among the judges elected or appointed in accordance with this article, after consultation with the Presidents of the Security Council and of the General Assembly, the Secretary-General shall appoint a person meeting the qualifications of paragraph 1 above, for the remainder of the term of office concerned."

In this connection, I regret to inform you that Judge Laïty Kama, a national of Senegal, died on 6 May 2001.

The Government of Senegal has presented the candidacy of Andréia Vaz, a national of Senegal, to replace Judge Kama. The curriculum vitae of Ms. Vaz is contained in the annex to the present letter.

It is my view that Ms. Vaz meets the qualifications which are prescribed in paragraph 1 of article 12 of the Statute of the International Criminal Tribunal for Rwanda. I also consider that the appointment of Ms. Vaz would be well calculated to ensure adequate representation on the Tribunal of the principal legal systems of the world, as contemplated in paragraph 2 (c) of article 12 of the Tribunal's Statute.

I should therefore like to proceed to consultation with you on the appointment of Ms. Vaz, in accordance with article 12, paragraph 3, of the Statute of the International Criminal Tribunal for Rwanda. I look forward to receiving your views on the matter.

(Signed) Kofi A. Annan



Annex

Curriculum vitae of Andréia Vaz (Senegal)

[Original: French]

Date and place of birth: 4 February 1944; Dakar.

Profession and rank

Non-ranking judge.

First President of the Court of Cassation of Senegal.

Qualifications

Diploma of the National Centre for Judicial Studies (France), 1969.

Degree in Private Law, 1967.

Baccalaureate (philosophy track), 1962.

Positions occupied since 1969

Examining magistrate of the Court of First Instance of Dakar.

Magistrate of the Court of First Instance of Dakar.

Magistrate of the primary examining chamber and President of the Labour Tribunal of Saint-Louis.

Dean of the Examining Magistrates of Dakar.

Vice-President of the Court of First Instance of Dakar.

Counsel for the Court of Appeal of Dakar.

Counsel for the Supreme Court of Dakar.

First President of the Court of Appeal of Dakar (June 1992).

President of the National Vote-tallying Commission of Senegal (1993).

President of the High Court of Justice of Senegal.

First President of the Court of Cassation (February 1997).

Other activities

Observer of the elections in Mali, Togo, Côte d'Ivoire and Benin as Joint Head of Mission.

Participation in a number of international conferences, including meetings of the International Union of Judges, the International Federation of Women in Legal Careers, the Federation of African Jurists and the World Peace Through Law Centre, the International Commission of Jurists, the Conference of Chief Judges of the Commonwealth and Judges of the Courts of Appeal.

Course supervisor at the National School of Administration and Magistrature, until 1991.

Former Secretary-General of the Senegalese Jurists Club.

Former Secretary-General of the Federation of African Jurists.

Secretary-General of the Senegalese Association for Legal Studies and Research,
and associate member of the International Commission of Jurists.

Member of the Permanent Court of Arbitration.

Knowledge of languages

French: fluent.

English.

Spanish.

Portuguese: reading knowledge.

Decorations

Officer of the Order of Merit of the Republic of Senegal.

Grand Officer of the Order of Merit of the Republic of Senegal.

Chevalier of the National Order of the Lion.



Security Council

Distr.: General
4 June 2001

Original: English

Letter dated 30 May 2001 from the President of the Security Council addressed to the Secretary-General

I have the honour to inform you that your letter dated 23 May 2001 (S/2001/550) concerning the composition of the International Criminal Tribunal for the Prosecution of Persons Responsible for Genocide and Other Serious Violations of International Humanitarian Law Committed in the Territory of Rwanda and Rwandan Citizens Responsible for Genocide and Other Such Violations Committed in the Territory of Neighbouring States between 1 January and 31 December 1994 has been brought to the attention of the members of the Security Council. Having consulted those members, I support your intention to appoint Ms. Andrézia Vaz as a judge of the Chambers of the International Tribunal.

(Signed) **James B. Cunningham**
President of the Security Council





Security Council

Distr.: General
4 June 2001

Original: English

Letter dated 31 May 2001 from the Secretary-General addressed to the President of the Security Council

I have the honour to refer to your letter of 30 May 2001 (S/2001/551) concurring with my proposal to appoint Ms. Andréia Vaz as a judge of the International Criminal Tribunal for Rwanda. I have received a corresponding letter from the President of the General Assembly. Accordingly, I have appointed Ms. Vaz as a judge of the International Criminal Tribunal for Rwanda, effective today, for the remainder of the term of office of Judge Kama, which term will expire on 24 May 2003.

(Signed) Kofi A. Annan





**General Assembly
Security Council**

Distr.: General
4 June 2001
English
Original: French

**General Assembly
Fifth-fifth session**

Agenda items 20 (d) and 46

Strengthening of the coordination of humanitarian and disaster relief assistance of the United Nations, including special economic assistance: emergency international assistance for peace, normalcy and reconstruction of war-stricken Afghanistan

The situation in Afghanistan and its implications for international peace and security

**Security Council
Fifty-sixth year**

Letter dated 31 May 2001 from the Chargé d'affaires a.i. of the Permanent Mission of Sweden to the United Nations addressed to the Secretary-General

I have the honour to draw your attention to the statement on the Taliban edict on Hindus issued on 30 May 2001 by the Presidency of the European Union on behalf of the European Union (see annex).

I should be grateful if you would have the text of this letter and its annex distributed as a document of the General Assembly, under agenda items 20 (d) and 46, and of the Security Council.

(Signed) Per Norström
Chargé d'affaires a.i.
Permanent Representative
of Sweden to the United Nations



**Annex to the letter dated 31 May 2001 from the Chargé d'affaires
a.i. of the Permanent Mission of Sweden to the United Nations
addressed to the Secretary-General**

**Statement on the Taliban edict on Hindus issued on 30 May 2001
by the Presidency of the European Union on behalf of the
European Union**

The European Union was deeply concerned to receive information about the edict of the Taliban leader, Mullah Omar, ordering all Hindus in Afghanistan to wear identity marks.

The European Union notes that the Taliban claim to be seeking to identify Hindus to prevent their being harassed "by mistake". The European Union recalls that the Taliban have to respect and protect the human rights of all persons belonging to the ethnic and religious minorities in Afghanistan. Forcing persons belonging to ethnic and religious minorities to wear distinctive clothing or identity marks is a form of discrimination which is prohibited by international human rights law. The European Union urges the Taliban leadership not to implement this unacceptable decision which will violate the human rights of Hindus in Afghanistan.

Moreover, the Taliban leadership is called upon to respect the human rights of all persons, without distinction.

The Central and Eastern European countries associated with the European Union, the associated countries of Cyprus, Malta and Turkey, and the European Free Trade Association countries members of the European Economic Area, align themselves with this statement.

**Security Council**

Distr.: General
4 June 2001
English
Original: Arabic

Letter dated 3 June 2001 from the Permanent Representative of Iraq to the United Nations addressed to the Secretary-General

On instructions from my Government, I have the honour to transmit to you herewith a letter dated 31 May 2001 from Mr. Tariq Aziz, Deputy Prime Minister and Acting Minister for Foreign Affairs of Iraq. The Minister states that, on Friday, 18 May 2001, three American warplanes perpetrated a criminal attack on an Iraqi Airways Boeing 707 civilian aircraft when they intercepted it while on a domestic flight carrying civilian passengers between Baghdad and Basrah governorates and trailed it for a distance of 17 air miles, provoking the pilot and asking him to identify the type and country of his aircraft and jeopardizing the safety of innocent civilian passengers.

The Minister affirms the Government of Iraq's condemnation of this act of aerial piracy and states that the United States and the United Kingdom bear international responsibility for such acts of aggression. He urges you to fulfil the responsibilities entrusted to you under the Charter by condemning these daily outrages and endeavouring to end them.

I should be grateful if you would have the present letter and its annex circulated as a document of the Security Council.

(Signed) Mohammed Al-Douri
Ambassador
Permanent Representative



Annex to the letter dated 3 June 2001 from the Permanent Representative of Iraq to the United Nations addressed to the Secretary-General

I should like to inform you that three American warplanes have perpetrated a wanton and criminal attack on an Iraqi Airways Boeing 707 civilian aircraft while it was on a domestic flight carrying civilian passengers between Baghdad and Basrah governorates.

This act of aerial piracy began at 1147 hours on Friday, 18 May 2001, and the United States and British aggressor aircraft trailed the Iraqi civilian plane for a distance of 17 air miles, provoking the pilot and asking him to identify the type and country of his aircraft.

Such wanton aggression on the part of the United States and the United Kingdom not only constitutes a serious violation of Iraq's sovereignty and territorial integrity and endangers the lives and safety of a large number of innocent civilians but also represents a flagrant and deliberate violation of the Charter of the United Nations and the norms of international law and a genuine threat to international peace and security created by two countries that are permanent members of the Security Council.

The United States of America and the United Kingdom are committing acts of aggression and violating Iraq's airspace and territory on a daily basis on the pretext of allegedly enforcing the illegal and unlawful no-flight zones that were imposed by these two countries in a pathological display of military power that poses a threat to the security and safety of innocent civilian citizens and represents an assault on the sovereignty of an independent Member State of the United Nations.

The ongoing daily aggression to which Iraq is being subjected requires that you fulfil the responsibilities entrusted to you by the Charter by condemning these daily outrages and endeavouring to end them.

Iraq affirms that the United Kingdom and the United States of America bear full international responsibility for these actions, and it reserves its right to claim ample compensation for all the resulting damage sustained by the people of Iraq.

(Signed) Tariq Aziz
Deputy Prime Minister
Acting Minister for Foreign Affairs

**General Assembly
Security Council**Distr.: General
4 June 2001

Original: English

**General Assembly
Fifty-sixth session
Item 179 of the preliminary list***
Measures to eliminate international terrorism**Security Council
Fifty-sixth year****Letter dated 4 June 2001 from the Permanent Representative of
Israel to the United Nations addressed to the Secretary-General**

I wish to draw your attention to a devastating terror attack which occurred this past Friday evening, 1 June 2001, in the heart of Tel-Aviv.

Shortly after 11.30 p.m. (local time), a Palestinian suicide bomber blew himself up in the middle of a crowd of teenagers waiting outside a popular Tel-Aviv nightclub. Twenty Israelis — all but 5 of them teenagers — were killed in this heinous massacre, and over 90 others were wounded. Among those killed were two sisters, aged 18 and 16.

Friday's bombing is the single worst act of terrorism committed since the outbreak of violence last September and is one of the deadliest attacks in recent years. Moreover, the attack comes during a period in which Israel is refraining from launching any military actions against Palestinian targets in the hope that this policy of restraint, enacted pursuant to the release of the report of the Mitchell Committee, will serve to restore calm and quiet.

I should like to recall my previous letters detailing the ongoing Palestinian terrorist campaign against Israel, dated 30 May 2001 (A/56/81-S/2001/540), 25 May 2001 (A/56/80-S/2001/524), 18 May 2001 (A/56/78-S/2001/506), 11 May 2001 (A/56/72-S/2001/473), 9 May 2001 (A/56/69-S/2001/459), 1 May 2001 (A/55/924-S/2001/435), 23 April 2001 (A/55/910-S/2001/396), 16 April 2001 (A/55/901-S/2001/364), 28 March 2001 (A/55/863-S/2001/291), 27 March 2001 (A/55/860-S/2001/280), 26 March 2001 (A/55/858-S/2001/278), 19 March 2001 (A/55/842-S/2001/244), 5 March 2001 (A/55/821-S/2001/193), 2 March 2001 (A/55/819-S/2001/187), 14 February 2001 (A/55/787-S/2001/137), 13 February 2001 (A/55/781-S/2001/132), 2 February 2001 (A/55/762-S/2001/103), 25 January 2001 (A/55/748-S/2001/81), 23 January 2001 (A/55/742-S/2001/71), 28 December 2000 (A/55/719-S/2000/1252), 22 November 2000 (A/55/641-S/2000/1114),

* A/56/50.



20 November 2000 (A/55/634-S/2000/1108), and 2 November 2000 (A/55/540-S/2000/1065).

Israel holds the Palestinian Authority responsible for this and all prior terrorist attacks in light of its encouragement of, incitement to, and even direct participation in violence. Since the outbreak of violence in late September, the Palestinian leadership has released scores of convicted terrorist prisoners and avoided taking any action to control violence. In doing so, the Palestinian Authority and its Chairman have created a terror coalition for the perpetration of indiscriminate terrorist attacks against Israel.

Despite the persistence of terror attacks, and the particularly gruesome carnage of Friday's attack, Israel is continuing to exercise tremendous restraint in order to provide the Palestinian leadership with a window of opportunity in which to fulfil its obligations to control violence and terror. Israel takes note of Chairman Arafat's call for an unconditional ceasefire but is mindful that such statements must be followed by concerted and discernible actions on the ground.

Israel calls upon the Palestinian leadership to abide by its commitment of 9 September 1993, to renounce violence and terror and implement a complete and unconditional ceasefire. Israel further calls upon the international community to make clear that terrorism is an abominable and unacceptable practice, regardless of its declared motives, and that those who engage in, or lend their support to, terrorist activity will be fought by the community of nations.

I should be grateful if you would arrange to have the text of the present letter circulated as a document of the fifty-sixth session of the General Assembly under item 179 of the preliminary list, and of the Security Council

(Signed) Yehuda Lancry
Permanent Representative



Security Council

Distr.: General
5 June 2001

Original: English

Letter dated 31 May 2001 from the Secretary-General addressed to the President of the Security Council

I have the honour to refer to my mission of good offices in Cyprus.

Further to my letter of 14 December 2000 addressed to the President of the Security Council (S/2000/1188), I should like to draw your attention to the fact that efforts related to my mission of good offices in Cyprus will continue at least throughout the current year.

In furtherance of the mission entrusted to me, which includes consultations in the region as well as with various capitals as required, my Special Adviser on Cyprus, Alvaro de Soto, will continue to be assisted by a small team.

I should be grateful if you would bring this letter to the attention of the members of the Security Council and alert them to the importance of continuing to support my efforts in discharging my mission in Cyprus.

(Signed) Kofi A. Annan





Security Council

Distr.: General
5 June 2001

Original: English

**Letter dated 5 June 2001 from the President of the
Security Council addressed to the Secretary-General**

I have the honour to inform you that your letter dated 31 May 2001 (S/2001/556) concerning your mission of good offices in Cyprus has been brought to the attention of the members of the Council. They take note of your letter.

(Signed) Anwarul Karim Chowdhury
President of the Security Council





**General Assembly
Security Council**

Distr.: General
5 June 2001

Original: English

**General Assembly
Fifty-fifth session
Agenda items 40, 56 and 94**

**Security Council
Fifty-sixth year**

The situation in the Middle East

**Consequences of the Iraqi occupation of and aggression
against Kuwait**

**Sustainable development and international economic
cooperation**

**Letter dated 4 June 2001 from the Permanent Representative of
Bahrain to the United Nations addressed to the Secretary-General**

I have the pleasure of enclosing the final communiqué of the seventy-ninth session of the Ministerial Council of the Cooperation Council for the Gulf Arab States, which was held in Jeddah on 2 and 3 June 2001 (see annex).

I would appreciate it if the present letter and its annex were issued as a document of the fifty-fifth session of the General Assembly, under agenda items 40, 56 and 94, and of the Security Council.

(Signed) Jassim Buallay
Ambassador
Permanent Representative



Annex to the letter dated 4 June 2001 from the Permanent Representative of Bahrain to the United Nations addressed to the Secretary-General

[Original: Arabic]

Press communiqué issued by the Ministerial Council of the Gulf Cooperation Council at its seventy-ninth session, held in Jeddah on 2 June 2001

On Saturday, 2 June 2001, the Ministerial Council of the Gulf Cooperation Council (GCC) held its seventy-ninth regular session in Jeddah under the chairmanship of His Excellency Sheikh Mohammed Bin Mubarak Al Khalifa, Minister for Foreign Affairs of the State of Bahrain and Chairman-in-Office of the Ministerial Council. The meeting was attended by:

His Highness Sheikh Hamdan Bin Zayed Al Nahyan, Minister of State for Foreign Affairs of the United Arab Emirates;

His Royal Highness Prince Saud al-Faisal, Minister for Foreign Affairs of Saudi Arabia;

His Excellency Mr. Yousef Bin Alawi Bin Abdullah, Minister responsible for Foreign Affairs of Oman;

His Excellency Sheikh Hamad Bin Jassem Bin Jabr Al Thani, Minister for Foreign Affairs of Qatar; and

His Excellency Sheikh Muhammad Sabah Al-Salim Al-Sabah, Minister of State for Foreign Affairs of Kuwait.

His Excellency Sheikh Jamil Ibrahim Al-Hujeilan, GCC Secretary-General, also participated in the meeting.

The Ministerial Council stated that it had been moved by the death of Mr. Faisal al-Husseini, member of the Executive Committee [of the Palestine Liberation Organization] responsible for matters relating to Jerusalem, and it commended the lifelong devotion of the deceased to the service of his country, Palestine, and to the defence of Jerusalem. The Council expressed its condolences to His Excellency Mr. Yasser Arafat, President of the Palestinian Authority, to the family of the deceased and to the fraternal Palestinian people.

In implementation of the instructions of the leaders of the GCC States framed with a view to promoting joint action to achieve the aspirations of the peoples of the region and strengthen security and stability, the Ministerial Council reviewed the outcome of the meetings of the ministerial and technical committees and the major developments that had taken place in connection with political issues and events at the regional, inter-Arab and international levels.

Economic affairs

The Council considered the report of the fifty-fourth meeting of the committee on financial and economic cooperation on measures for the establishment of the GCC customs union, the proposed expansion of the Economic Agreement and the work programme for completing the requirements for the implementation of

article 22 of the Economic Agreement and the establishment of the GCC monetary union. It considered the committee's recommendations relating to the elimination of obstacles to trade among member States and to negotiations on a collective basis with Arab trading partners.

The Council further considered the report of the thirteenth meeting of the committee on cooperation in matters concerning electricity and water and its discussion of the GCC electric power linkage authority. It also considered the report of the twelfth meeting of the ministerial posts and telecommunications committee and its discussion of the reduction of rates for settlements among telecommunications administrations in member States and of cooperation among GCC States with regard to a number of telecommunications issues and postal matters. It also considered the fifteenth annual report of the GCC standards organization.

Man and the environment

The Council considered the progress made in joint action in the fields of education, scientific research, the environment and health. The activities in question included: follow-up action on the resolutions of the Supreme Council in the field of curriculum development in public education; the measures taken for the publication of the standardized regime for the handling and management of hazardous chemicals and the standardized regime for health-care waste management; and agreements relating to the conservation of nature and natural habitats. The Council reviewed the steps being taken to establish a GCC food safety committee and the statute that will regulate its functioning.

Military matters

The Council considered the progress made in military cooperation and the achievements recorded, and it expressed its aspiration for continued successes in this field.

Political issues

The Council discussed developments in the context of Iraq's compliance with the Security Council resolutions relating to the situation between Iraq and Kuwait and the consequences of its occupation of Kuwait.

The Council expressed its strong condemnation and denunciation of the Iraqi political message that had been voiced by a number of senior Iraqi officials and of Iraq's arrogance towards and intimidation of its neighbours. It urged the Iraqi Government to desist from such irresponsible statements and to demonstrate its good faith in both word and deed.

In its concern to create appropriate conditions for the achievement and consolidation of security, peace and stability in the Gulf region, the Council renewed its call to Iraq to discharge in full its obligations under the Security Council resolutions relating to cooperation with the International Committee of the Red Cross, the United Nations high-level coordinator and the Tripartite Commission in devising an expeditious and definitive solution to the problem of Kuwaiti and third-country prisoners and hostages and the return of all Kuwaiti property in its possession. The Council also urged Iraq to cooperate with the United Nations in

bringing the outstanding issues relating to weapons of mass destruction and monitoring systems to a satisfactory conclusion.

The Council called upon Iraq and the Security Council to engage in an exhaustive dialogue with a view to the discharge of these obligations in a just and comprehensive manner and in accordance with sound principles as a step towards the lifting of sanctions.

The Council stressed that Iraq must undertake to respect the security, independence, sovereignty and territorial integrity of Kuwait and that it must take all necessary steps to demonstrate its peaceful intentions towards the GCC countries if the region's security and stability are to be assured.

The Council called upon Iraq to comply with the relevant Security Council resolutions with a view to ending the suffering of the Iraqi people, and it once again affirmed that it continued to welcome and to be prepared to participate in all humanitarian initiatives to mitigate that suffering.

The Council refers in this connection to the positive efforts that were made by the GCC States at the Arab Summit Conference held in Amman to reach agreement on a text calling upon the United Nations to lift the sanctions imposed on the Iraqi people. Iraq's rejection of the text, however, thwarted those efforts, and the Iraqi Government thus demonstrated once again that it has no desire for or interest in ending the suffering of the fraternal Iraqi people.

The Council again affirmed that the independence, unity and territorial integrity of Iraq must be respected and that there must be no interference in its internal affairs.

The Ministerial Council further pursued the mandate entrusted to it by the Supreme Council to examine all available peaceful means that might be conducive to the restoration to the United Arab Emirates of its legitimate rights in its three islands, namely the Greater Tunb, the Lesser Tunb and Abu Musa, that are still being occupied by the Islamic Republic of Iran. It was of the view that Iran's rejection of the many peace initiatives advanced to resolve the issue of the three islands, and most recently the efforts of the GCC Committee of Three, is not in accord with Iran's declared desire for dialogue and the elimination of tension, does not advance security and stability in the Arabian Gulf and impedes the improvement of relations between the two sides.

The Council again objected in the strongest terms to Iran's preparations to build dwellings for settlement on the three islands with a view to altering their demographic composition, in violation of the relevant 1949 Geneva Convention, and it demanded a halt to the construction of such settlement-related installations and the removal of those already built.

The Council reaffirmed its unconditional support for the claim of the United Arab Emirates to the three islands occupied by the Islamic Republic of Iran, namely the Greater Tunb, the Lesser Tunb and Abu Musa, and its rejection of the continued occupation by the Islamic Republic of Iran of the three islands belonging to the United Arab Emirates. It affirms the full sovereignty of the United Arab Emirates over the three islands as an integral part of the country, the fact that it retains all of its rights in respect of those islands, and the Council's non-recognition of any sovereignty other than that of the United Arab Emirates over its three islands, their

territorial waters, their airspace and the related continental shelf and exclusive economic zone.

The Council condemned Iran's encroachments and the military exercises that it conducts on the three islands belonging to the United Arab Emirates that it occupies and in their territorial waters, and it urges Iran to desist from conducting such exercises given that they are acts of provocation that pose a threat to security and stability in the Arabian Gulf region, constitute a source of great concern and are unhelpful in building confidence.

The Council supports all the steps being taken by the United Arab Emirates to restore its sovereignty over all three islands by peaceful means, in accordance with the principle of the collective security of the GCC countries. It exhorts the Islamic Republic of Iran to agree to refer the dispute to the International Court of Justice as the body that is competent to resolve boundary disputes between States, especially since the United Arab Emirates has declared in advance that it will accept any Judgment delivered by the International Court of Justice in the dispute in question. Many States have placed their trust in the International Court of Justice for the resolution of their boundary disputes, and Iran itself has approached the Court on more than one occasion in advancing its claims.

The Ministerial Council considered the situation in the occupied Palestinian territories, Israel's repressive practices, the blockade and starvation of the Palestinian people, the continuing assaults by the Israeli forces and Israel's attempts to destroy the peace process, all of which are causing greater instability and plunging the region into a maelstrom of violence. The Council urges the international community to make effective efforts to end Israel's practices, its violations and its defiance of the international will. The Council renewed its unconditional support for the Palestinian people and for the establishment of its independent State with Jerusalem as its capital, the restoration of all of its usurped rights and the return of the refugees to their homes in accordance with the relevant United Nations resolutions, specifically Security Council resolutions 242 (1967) and 338 (1973) and General Assembly resolution 194 (III), and the principle of land for peace.

The Council welcomed the recommendations contained in the final communiqué of the Follow-Up and Action Committee [of the Council of the League of Arab States] at its emergency meeting held on 19 May 2001 and in the final communiqué of the Islamic Conference of Foreign Ministers held in Doha on 26 May 2001. It urges Israel to refrain from any action that may exacerbate the situation on the Syrian and Lebanese fronts and to embark on negotiations with a view to implementing a full withdrawal from the occupied Syrian Golan Heights to the line of 4 June 1967, completing its withdrawal from Lebanese territory, including the Shab'a farmlands, to the internationally recognized boundary in accordance with Security Council resolutions 425 (1978) and 426 (1978), and releasing all the Lebanese prisoners and abductees being held in its prisons.

The Council urges the co-sponsors of the peace process, and especially the United States of America, to make greater efforts to halt the Israeli attacks so that negotiations may resume. It affirms its support for the Palestinian negotiators, and it appeals to the international community to make greater efforts to bring pressure to bear on the Israeli side and to require it to abide by the principles endorsed by the Madrid Peace Conference so that all legitimate Arab rights may be restored.

The Council holds Israel responsible for driving the Palestinian people into a state of frustration with its refusal to comply with the agreements reached, and it calls upon the permanent members of the Security Council to meet their responsibilities by halting the Israeli attacks, by ensuring that the blockade being maintained against the Palestinian people is lifted and by providing international protection.

The Council again calls upon the international community to take action to transform the Middle East region, including the Gulf, into a zone free of all weapons of mass destruction, including nuclear weapons. The Council affirms once more that Israel must accede to the Treaty on the Non-Proliferation of Nuclear Weapons and submit all its nuclear facilities to the International Atomic Energy Agency inspection regime.

**Security Council**

Distr.: General
5 June 2001
English
Original: Arabic

Letter dated 5 June 2001 from the Permanent Representative of Iraq to the United Nations addressed to the Secretary-General

On instructions from my Government, I have the honour to transmit to you herewith a letter dated 5 June 2001 from Mr. Tariq Aziz, Deputy Prime Minister and Acting Minister for Foreign Affairs of Iraq. It concerns a fresh act of wanton aggression that was committed by United States and British aircraft on 23 May 2001 when they fired three missiles at an area of wheatland in the Hamdaniyah district of Ninawa Governorate, setting fire to the land and completely destroying the crop.

The Minister brings to your attention the hostile practices of two countries that are permanent members of the Security Council, and he expresses the hope that you will discharge in full your responsibility under Article 99 of the Charter and alert the Security Council to this wanton aggression with a view to ending it.

I should be grateful if you would have the present letter and its annex circulated as a document of the Security Council.

(Signed) Mohammed Al-Douri
Ambassador
Permanent Representative



Annex to the letter dated 5 June 2001 from the Permanent Representative of Iraq to the United Nations addressed to the Secretary-General

Further to the letter in which I conveyed to you some details of the aggression being committed by the United States and the United Kingdom against Iraq on a daily basis in the two so-called no-flight zones (S/2001/554, annex), I should like to inform you that on 23 May 2001 United States and British aircraft fired three missiles at an area of wheatland in the Hamdaniyah district of Ninawa Governorate. This act of aggression caused a fire that consumed seven dunams of land and completely destroyed the crop.

This wanton aggression provides further proof that the United States of America and the United Kingdom have not been content to maintain an iniquitous embargo against the people of Iraq for more than 10 years but are also persisting in waging daily military aggression against Iraqi citizens and in destroying their property and their sources of livelihood. This confirms that the actions of the United States of America and the United Kingdom constitute a crime of systematic mass extermination that is being committed against the people of Iraq as the international community and the United Nations look on.

In bringing to your attention the bellicose practices of two countries that are permanent members of the Security Council, the Government of Iraq expresses the hope that you will discharge in full your responsibility under Article 99 of the Charter and alert the Security Council to this wanton aggression with a view to its being brought to an end.

The Government of Iraq further reserves in full its right under international law and the Charter of the United Nations to protect the safety of its people, to defend its territorial integrity and to claim from the aggressor States and those countries that support them in their aggression full legal compensation for all the damage, in human, material and moral terms, that has been done to the people of Iraq.

(Signed) Tariq Aziz
Deputy Prime Minister
Acting Minister for Foreign Affairs

**Security Council**

Distr.: General
6 June 2001

Original: English

**Letter dated 1 June 2001 from the Executive Chairman of
the United Nations Monitoring, Verification and Inspection
Commission addressed to the President of the Security Council**

In paragraph 19 of its resolution 1330 (2000), the Security Council reiterated its request in paragraph 8 of resolution 1284 (1999) to the Executive Chairman of the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) and to the Director General of the International Atomic Energy Agency to complete by the end of this period the revision and updating of the lists of items and technology to which the import/export mechanism approved by resolution 1051 (1996) applies.

Paragraph 26 of the Special Commission's plan for ongoing monitoring and verification (S/22871/Rev.1), approved by the Security Council in its resolution 715 (1991), provides that the Special Commission could, after informing the Security Council, update and revise the annexes in the light of information and experience gained in the course of the implementation of resolution 687 (1991) and 707 (1991) and of the plan.

In paragraph 9 of its resolution 1051 (1996), the Security Council provides that the lists may be amended in accordance with the plans, after appropriate consultations with interested States and, as laid down in the plans, after notification to the Council.

In accordance with the above requirements, UNMOVIC held a series of consultations with interested States. Consultations on the lists of chemical and biological items took place on 13 and 14 February and 8 and 9 May 2001. Consultations on the missile-related list took place on 25 April 2001.

For the purposes of the notification to the Security Council, as provided in its resolution 1051 (1996), I am transmitting herewith the revised lists of chemical-, biological- and missile-related items subject to notification under the resolution (see annex).

I would be most grateful if you would bring the present letter, together with the revised lists, to the attention of the members of the Council.

(Signed) Hans Blix



1 June 2001

**Revised Annex II of the Plan for ongoing
monitoring and verification**

Items to be notified under the Export / Import Mechanism approved by SCR1051

Provisions related to Chemical Items

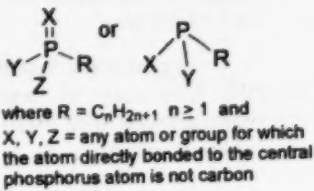
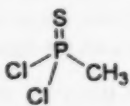
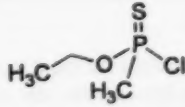
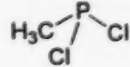
1. The following list (List A) contains chemicals capable of being used for the development, production or acquisition of chemical weapons, but which also are usable for purposes not prohibited by resolution 687 (1991) and, therefore, are subject to notification under the Export/Import monitoring mechanism for Iraq approved by Security Council resolution 1051 (1996). For the purposes of this annex the chemicals listed include their chemical forms and mixtures.

Note:

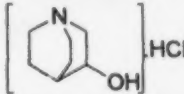
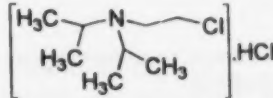
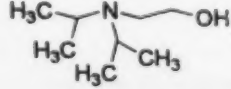
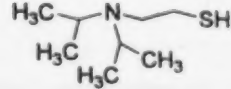
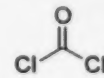
All mixtures which contain two or more chemicals from List A in any percentage, are subject to notification, but mixtures that contain less than 10% (weight/weight; on a solvent free basis) of only one chemical of List A are exempted.

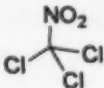
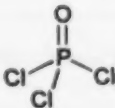
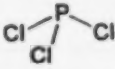
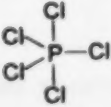
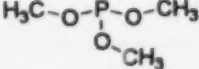
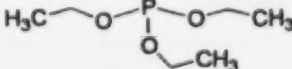
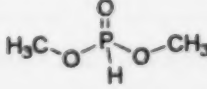
The term chemical forms means all stereoisomers, allotropes or isotopes of the chemical in any physical state (for example gaseous, liquid, solid, solvated, powdered etc).

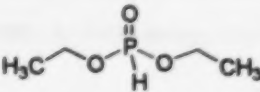
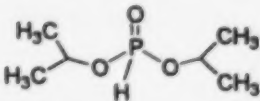
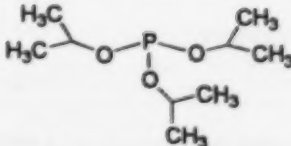
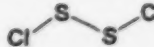
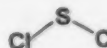
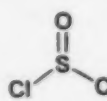
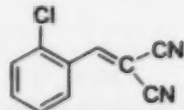
List A: Dual-Use Chemicals Requiring Notification

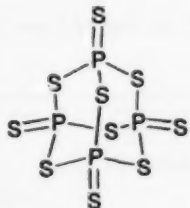
ITEM	STRUCTURE
A.01 (Commodity Designator Code: CA000A01) Chemicals, except those specified in list B of this annex, containing a phosphorus atom to which is bonded one alkyl group but no further carbon atoms.	 where $R = C_nH_{2n+1}$ $n \geq 1$ and X, Y, Z = any atom or group for which the atom directly bonded to the central phosphorus atom is not carbon
for example: Methylphosphonothioic dichloride [CAS No. 676-98-2]	
for example: O-Ethyl methylphosphonothioic chloride [CAS No. 2524-16-5]	
for example: Methylphosphonous dichloride [CAS No. 676-83-5]	

ITEM	STRUCTURE
for example: Ethylphosphonous dichloride [CAS No. 1498-40-4]	
for example: O-Ethyl S-phenyl ethylphosphonothiothionate [CAS No. 944-22-9]	
(also known as: Fonofos)	
for example: Methylphosphonic acid, monomethyl ester, sodium salt. [CAS No. 73750-69-3]	
A.02 (Commodity Designator Code: CA000A02) Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates	where R, R¹, R² = C_nH_{2n+1} n = 1-3
for example: Diethyl N,N-dimethylphosphoramidate [CAS No. 2404-03-7]	
A.03 (Commodity Designator Code: CA000A03) Arsenic trichloride [CAS No. 7784-34-1]	AsCl ₃
A.04 (Commodity Designator Code: CA000A04) 2,2-Diphenyl-2-hydroxyacetic acid [CAS No. 76-93-7]	
(also known as: benzoic acid)	
A.05 (Commodity Designator Code: CA000A05) Quinuclidin-3-ol [CAS No. 1619-34-7] and corresponding protonated salts	

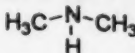
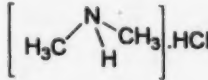
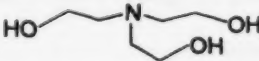
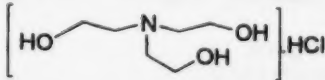
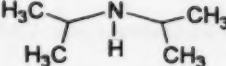
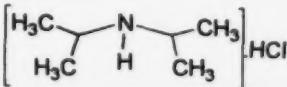
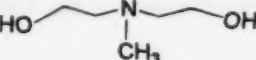
ITEM	STRUCTURE
for example: Quinuclidin-3-ol hydrochloride [CAS No. 6238-13-7]	
A.06 (Commodity Designator Code: CA000A06) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chloride and corresponding protonated salts	$R_2N-CH_2-CH_2-Cl$ where $R = C_nH_{2n+1}$ $n = 1-3$
for example: 2-(Diisopropylamino)ethyl chloride hydrochloride [CAS No. 4261-68-1]	
A.07 (Commodity Designator Code: CA000A07) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ol and corresponding protonated salts	$R_2N-CH_2-CH_2-OH$ where $R = C_nH_{2n+1}$ $n = 1-3$
for example: 2-(Diisopropylamino)ethanol [CAS No. 96-80-0]	
A.08 (Commodity Designator Code: CA000A08) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiol and corresponding protonated salts	$R_2N-CH_2-CH_2-SH$ where $R = C_nH_{2n+1}$ $n = 1-3$
for example: 2-(Diisopropylamino)ethanethiol [CAS No. 5842-07-9]	
A.09 (Commodity Designator Code: CA000A09) Phosgene [CAS No. 75-44-5] (also known as: carbonyl dichloride)	
A.10 (Commodity Designator Code: CA000A10) Cyanogen chloride [CAS No. 506-77-4]	$Cl-C \equiv N$

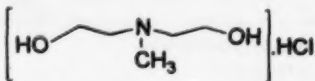
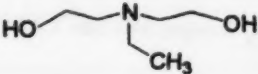
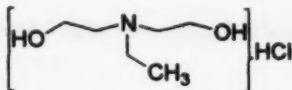
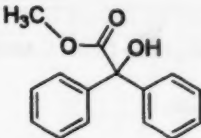
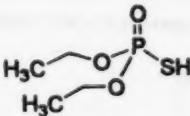
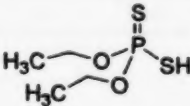
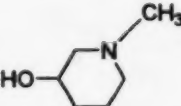
ITEM	STRUCTURE
A.11 (Commodity Designator Code: CA000A11) Hydrogen cyanide [CAS No. 74-90-8]	HCN
A.12 (Commodity Designator Code: CA000A12) Trichloronitromethane [CAS No. 76-06-2] (also known as: chloropicrin)	
A.13 (Commodity Designator Code: CA000A13) Phosphorus oxychloride [CAS No. 10025-87-3]	
A.14 (Commodity Designator Code: CA000A14) Phosphorus trichloride [CAS No. 7719-12-2]	
A.15 (Commodity Designator Code: CA000A15) Phosphorus pentachloride [CAS No. 10026-13-8]	
A.16 (Commodity Designator Code: CA000A16) Trimethyl phosphite [CAS No. 121-45-9]	
A.17 (Commodity Designator Code: CA000A17) Triethyl phosphite [CAS No. 122-52-1]	
A.18 (Commodity Designator Code: CA000A18) Dimethyl phosphite [CAS No. 868-85-9] (also known as: dimethyl phosphonate; dimethyl hydrogen phosphite)	

ITEM	STRUCTURE
A.19 (Commodity Designator Code: CA000A19) Diethyl phosphite [CAS No. 762-04-9] (also known as: diethyl phosphonate)	
A.20 (Commodity Designator Code: CA000A20) Diisopropyl phosphite [CAS No. 1809-20-7] (also known as: diisopropyl phosphonate)	
A.21 (Commodity Designator Code: CA000A21) Triisopropyl phosphite [CAS No. 116-17-6]	
A.22 (Commodity Designator Code: CA000A22) Sulphur monochloride [CAS No. 10025-67-9]	
A.23 (Commodity Designator Code: CA000A23) Sulphur dichloride [CAS No. 10545-99-0]	
A.24 (Commodity Designator Code: CA000A24) Thionyl chloride [CAS No. 7719-09-7]	
A.25 (Commodity Designator Code: CA000A25) Hydrogen fluoride [CAS No. 7664-39-3]	HF
A.26 (Commodity Designator Code: CA000A26) ortho-Chlorobenzylidene malononitrile [CAS No. 2698-41-1] (also known as: CS)	

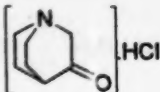
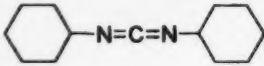
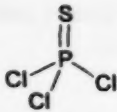
ITEM	STRUCTURE
A.27 (Commodity Designator Code: CA000A27) Potassium fluoride [CAS No. 7789-23-3]	KF
A.28 (Commodity Designator Code: CA000A28) Ammonium bifluoride [CAS No. 1341-49-7]	NH ₄ F.HF
A.29 (Commodity Designator Code: CA000A29) Sodium bifluoride [CAS No. 1333-83-1]	NaF.HF
A.30 (Commodity Designator Code: CA000A30) Sodium fluoride [CAS No. 7681-49-4]	NaF
A.31 (Commodity Designator Code: CA000A31) Potassium bifluoride [CAS No. 7789-29-9]	KF.HF
A.32 (Commodity Designator Code: CA000A32) Sodium sulphide [CAS No. 1313-82-2]	Na ₂ S
A.33 (Commodity Designator Code: CA000A33) Phosphorus pentasulphide [CAS No. 1314-80-3]	P ₂ S ₅ exists as: 
A.34 (Commodity Designator Code: CA000A34) Chloroethanol [CAS No. 107-07-3]	

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ITEM	STRUCTURE
A.35 (Commodity Designator Code: CA000A35) Dimethylamine [CAS No. 124-40-3] and corresponding protonated salts	
for example: Dimethylamine hydrochloride [CAS No. 506-59-2]	
A.36 (Commodity Designator Code: CA000A36) Potassium cyanide [CAS No. 151-50-8]	KCN
A.37 (Commodity Designator Code: CA000A37) Sodium cyanide [CAS No. 143-33-9]	NaCN
A.38 (Commodity Designator Code: CA000A38) Triethanolamine [CAS No. 102-71-6] and corresponding protonated salts	
for example: Triethanolamine hydrochloride [CAS No. 637-39-8]	
A.39 (Commodity Designator Code: CA000A39) Diisopropylamine [CAS No. 108-18-9] and corresponding protonated salts	
for example: Diisopropylamine hydrochloride [CAS No. 819-79-4]	
A.40 (Commodity Designator Code: CA000A40) Methyl diethanolamine [CAS No. 105-59-9] and corresponding protonated salts	

ITEM	STRUCTURE
for example: Methyl diethanolamine hydrochloride [CAS No. 54060-15-0]	
A.41 (Commodity Designator Code: CA000A41) Ethyl diethanolamine [CAS No. 139-87-7] and corresponding protonated salts	
for example: Ethyl diethanolamine hydrochloride [CAS No. 58901-15-8]	
A.42 (Commodity Designator Code: CA000A42) Methyl benzilate [CAS No. 76-89-1]	
A.43 (Commodity Designator Code: CA000A43) O,O-Diethyl phosphorothioate [CAS No. 2465-65-8]	
A.44 (Commodity Designator Code: CA000A44) O,O-Diethyl phosphorodithioate [CAS No. 298-06-6]	
A.45 (Commodity Designator Code: CA000A45) Ethylene oxide [CAS No. 75-21-8]	
A.46 (Commodity Designator Code: CA000A46) 3-Hydroxy-1-methylpiperidine [CAS No. 3554-74-3] and corresponding protonated salts	
A.47 (Commodity Designator Code: CA000A047) 3-Quinuclidone [3731-38-2] and corresponding protonated salts	

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ITEM	STRUCTURE
for example: 3-Quinuclidone hydrochloride [CAS No. 1193-65-3]	
A.48 (Commodity Designator Code: CA000A48) Phosphorus [CAS No. 7723-14-0]	P
A.49 (Commodity Designator Code: CA000A49) Fluorine [CAS No. 7782-41-4]	F ₂
A.50 (Commodity Designator Code: CA000A50) Dicyclohexylcarbodiimide [CAS No. 538-75-0]	
A.51 (Commodity Designator Code: CA000A51) Thiophosphoryl Chloride [CAS No. 3982-91-0] (also known as: Phosphorus sulphochloride)	

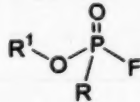
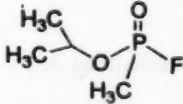
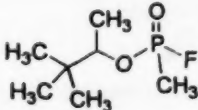
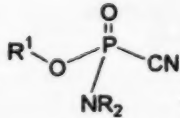
2. The following list (List B) contains chemicals that have little or no use except as chemical warfare agents or for the development, production or acquisition of chemical weapons, or which have been used by Iraq as essential precursors for chemical weapons and are, therefore, prohibited to Iraq, save under the procedure for special exceptions provided for in paragraph 32 of the Plan (S/22871/Rev.1).

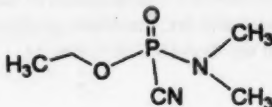
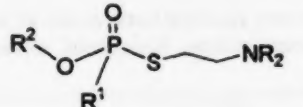
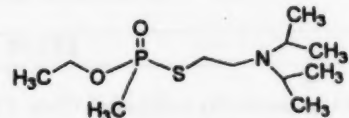
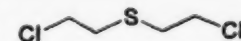
Note:

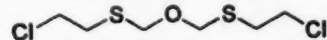
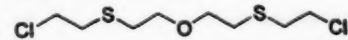
For the purposes of this annex the chemicals listed include their chemical forms and mixtures in any percentage save under the procedure for special exceptions provided for in paragraph 32 of the Plan.

The term chemical forms means all stereoisomers or isotopes of the chemical in any physical state (for example gaseous, liquid, solid, solvated, powdered etc).

List B – Normally Prohibited Chemicals [except under paragraph 32 of the Plan (S/22871/Rev.1; 1991)]

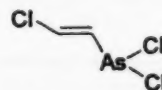
ITEM	STRUCTURE
B.01 (Commodity Designator Code: CA000B01) O-Alkyl ($\leq C_{10}$, including cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr) phosphonofluoridates	 where $R = C_nH_{2n+1}$ $n = 1-3$ and $R' = \leq C_{10}$, including cycloalkyl
for example: O-Isopropyl methylphosphonofluoridate [CAS No. 107-44-8] (also known as: Sarin; GB)	
for example: O-Pinacolyl methylphosphonofluoridate [CAS No. 96-64-0] (also known as: Soman; GD)	
B.02 (Commodity Designator Code: CA000B02) O-Alkyl ($\leq C_{10}$, including cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates	 where $R = C_nH_{2n+1}$ $n = 1-3$ and $R' = \leq C_{10}$, including cycloalkyl

ITEM	STRUCTURE
for example: O-Ethyl N,N-dimethylphosphoramidocyanidate [CAS No. 77-81-6] (also known as: Tabun; GA)	
B.03 (Commodity Designator Code: CA000B03) O-Alkyl (H or $\leq C_{10}$, including cycloalkyl) S-2-dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonothiolates or corresponding alkylated and protonated salts	 where R, R' = C_nH_{2n+1} n = 1-3 and R² = H or $\leq C_{10}$, including cycloalkyl
for example: O-Ethyl S-[2-(diisopropylamino)ethyl] methylphosphonothiolate [CAS No. 50782-69-9] (also known as: VX)	
B.04 (Commodity Designator Code: CA000B04)	
<u>Sulphur mustards:</u>	
for example: 2-Chloroethylchloromethylsulphide [CAS No. 2625-76-5]	
for example: Bis(2-chloroethyl)sulphide [CAS No. 505-60-2] (also known as: Sulphur Mustard; H)	
for example: Bis(2-chloroethylthio)methane [CAS No. 63869-13-6]	
for example: 1,2-Bis(2-chloroethylthio)ethane [CAS No. 3563-36-8] (also known as: Sesquimustard; Q)	

ITEM	STRUCTURE
for example: 1,3-Bis(2-chloroethylthio)-n-propane [CAS No. 63905-10-2]	
for example: 1,4-Bis(2-chloroethylthio)-n-butane [CAS No. 142868-93-7]	
for example: 1,5-Bis(2-chloroethylthio)-n-pentane [CAS No. 142868-94-8]	
for example: Bis(2-chloroethylthiomethyl)ether [CAS No. 63918-90-1]	
for example: Bis(2-chloroethylthioethyl)ether [CAS No. 63918-89-8]	
(also known as: O-mustard; T)	

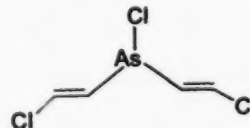
B.05 (Commodity Designator Code: CA000B05)Lewisites:

for example:
2-Chlorovinylchloroarsine
[CAS No. 541-25-3]



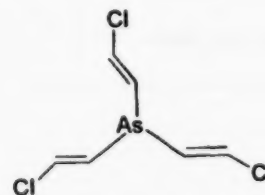
(also known as: Lewisite 1)

for example:
Bis(2-chlorovinyl)chloroarsine
[CAS No. 40334-69-8]

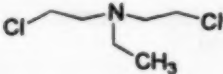
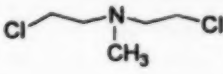
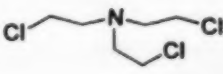
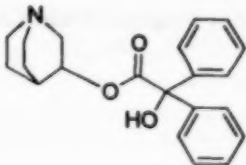
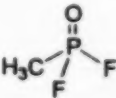


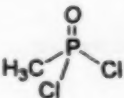
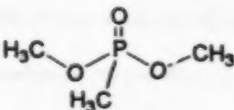
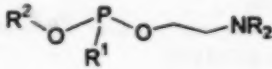
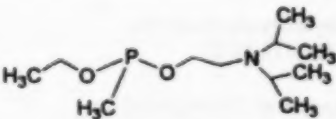
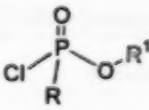
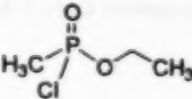
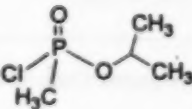
(also known as: Lewisite 2)

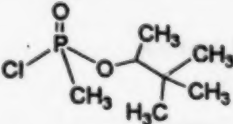
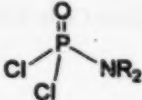
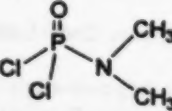
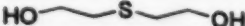
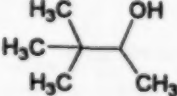
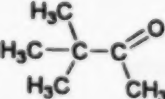
for example:
Tris(2-chlorovinyl)arsine
[CAS No. 40334-70-1]

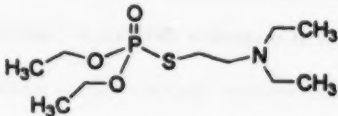
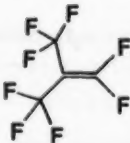
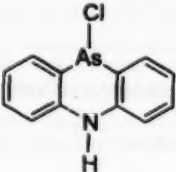
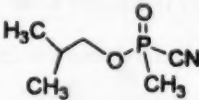


(also known as: Lewisite 3)

ITEM	STRUCTURE
B.06 (Commodity Designator Code: CA000B06)	
<u>Nitrogen mustards and their protonated salts:</u>	
for example: Bis(2-chloroethyl)ethylamine [CAS No. 538-07-8]	
(also known as: HN1)	
for example: Bis(2-chloroethyl)methylamine [CAS No. 51-75-2]	
(also known as: HN2)	
for example: Tris(2-chloroethyl)amine [CAS No. 555-77-1]	
(also known as: HN3)	
B.07 (Commodity Designator Code: CA000B07)	
3-Quinuclidinyl benzilate [CAS No. 6581-06-2]	
(also known as: BZ)	
B.08 (Commodity Designator Code: CA000B08)	
Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldihalides	 where R = C_nH_{2n+1} n = 1-3 and X, Y = halides
for example: Methylphosphonyl difluoride [CAS No. 676-99-3]	
(also known as: DF; MPF)	

ITEM	STRUCTURE
for example: Methylphosphonyl dichloride [CAS No. 676-97-1]	
(also known as: DC; MPC)	
B.09 (Commodity Designator Code: CA000B09)	
Dimethyl methylphosphonate [CAS No. 756-79-6]	
(also known as: DMMP)	
B.10 (Commodity Designator Code: CA000B10)	
O-Alkyl (H or $\leq C_{10}$, including cycloalkyl) O-2-Dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonites and corresponding alkylated salts and protonated salts	 where $R, R^1 = C_nH_{2n+1}$ $n = 1-3$ and $R^2 = H$ or $\leq C_{10}$, including cycloalkyl
O-Ethyl O-2-diisopropylaminoethyl methylphosphonite [CAS No. 57856-11-8]	
(also known as: QL)	
B.11 (Commodity Designator Code: CA000B11)	
O-Alkyl ($\leq C_{10}$, including cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr) phosphonochloridates	 where $R = C_nH_{2n+1}$ $n = 1-3$ and $R^1 = \leq C_{10}$, including cycloalkyl
for example: O-Ethyl methylphosphonochloridate [CAS No. 5284-09-3]	
for example: O-Isopropyl methylphosphonochloridate [CAS No. 1445-76-7]	
(also known as: Chlorosarin)	

ITEM	STRUCTURE
for example: O-Pinacolyl methylphosphonochloridate [CAS No. 7040-57-5]	
(also known as: Chlorosoman)	
B.12 (Commodity Designator Code: CA000B12) N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides	
	where R = C _n H _{2n+1} n = 1-3
for example: N,N-dimethylphosphoramidic dichloride [CAS No. 677-43-0]	
B.13 (Commodity Designator Code: CA000B13) Bis(2-hydroxyethyl)sulphide [CAS No. 111-48-8]	
(also known as: Thiodiglycol)	
B.14 (Commodity Designator Code: CA000B14) Bis(2-hydroxyethyl)disulphide [CAS No. 1892-29-1]	
(also known as: Dithiodiglycol)	
B.15 (Commodity Designator Code: CA000B15) 3,3-Dimethylbutan-2-ol [CAS No. 464-07-3]	
(also known as: Pinacolyl alcohol)	
B.16 (Commodity Designator Code: CA000B16) 3,3-Dimethylbutan-2-one [CAS No. 75-97-8]	
(also known as: Pinacolone)	

ITEM	STRUCTURE
B.17 (Commodity Designator Code: CA900B17) O,O-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate [CAS No. 78-53-5] and corresponding alkylated and protonated salts (also known as: Amiton)	
B.18 (Commodity Designator Code: CA000B18) 1,1,3,3,3-Pentafluoro-2-(trifluoromethyl)-1-propene [CAS No. 382-21-8] (also known as: PFIB)	
B.19 (Commodity Designator Code: CA000B19) Diphenylaminechloroarsine [CAS No. 578-94-9] (also known as: Adamsite)	
B.20 (Commodity Designator Code: CA000B20) O-Isobutyl methylphosphonocyanidate	

DUAL-USE EQUIPMENT

10.4.1.1 (Commodity Designator Code: CA010411)

Corrosion resistant¹ reactor vessels or reactors with an internal volume of 0.05 m³ or greater but less than 20 m³.

Corrosion resistant¹ agitators for use in reactor vessels.

10.4.1.2 (Commodity Designator Code: CA010412)

Corrosion resistant¹ condensers and corrosion resistant¹ heat exchangers with a heat transfer surface area of 0.03 m² or greater.

10.4.1.3 (Commodity Designator Code: CA010413)

Corrosion resistant¹ distillation and corrosion resistant¹ absorption columns with an internal diameter of 0.05 m or greater.

10.4.1.4 (Commodity Designator Code: CA010414)

Corrosion resistant¹ scrubbers and corrosion resistant¹ separators for use in scrubbers.

10.4.1.5 (Commodity Designator Code: CA010415)

Corrosion resistant¹ tanks and other storage vessels with an internal volume of 0.05 m³ or more.

10.4.1.6 (Commodity Designator Code: CA010416)

Sheets made of fluoropolymer or corrosion resistant¹ metal or alloy with a surface area of more than 1 m² and a thickness of 4 mm or more.

10.4.2 (Commodity Designator Code: CA010420)

Corrosion resistant¹ multiple-seal, canned drive, magnetic drive, bellows or diaphragm pumps, or progressive cavity tubing pumps (including peristaltic or roller pumps in which only the elastometric tubing is corrosion resistant¹) with manufacturer's specified maximum flow-rate of 0.01 m³/minute or greater, under standard temperature (293 K) and standard pressure conditions (101.30 kPa).

Corrosion resistant¹ vacuum pumps with manufacture's specified maximum flow-rate greater than 0.08 m³/minute under standard temperature (293 K) and pressure (101.3 kPa) conditions.

10.4.3 (Commodity Designator Code: CA010430)

Corrosion resistant¹ conduits (including single and double-walled pipes, towers, columns and tubes) with an inner diameter of 0.05 m or more.

10.4.4 (Commodity Designator Code: CA010440)

Corrosion resistant¹ valves with a smallest inner diameter of 12.5 mm or more.

10.4.5 (Commodity Designator Code: CA010450)

Corrosion resistant¹ remote-controlled filling equipment.

10.4.6 (Commodity Designator Code: CA010460)

Incineration equipment designed for the disposal of toxic chemicals with an average combustion chamber temperature of over 1273 K (1000° C) or with catalytic incineration over 623 K (350° C).

10.4.7 (Commodity Designator Code: CA010470)

Equipment and instruments designed for detecting, measuring or recording directly and near real time (within one minute),

- (a) the air concentration of List A dual-use chemicals or toxic organic substances/organic compounds containing the elements chlorine, fluorine, phosphorus or sulphur, with a detection threshold from 0.3 mg/m³; or
- (b) levels of cholinesterase-inhibitors in the air, including specially designed equipment for the detection or identification of chemical warfare agents.

Note: The above entry excludes smoke detectors for household protection.

10.4.8 (Commodity Designator Code: CA010480)

Chemical protection equipment designed for protection against toxic chemicals (as given in UNMOVIC lists A & B) as follows:

- (a) external ventilated semi- or full-protection personal suits;
- (b) autonomous respirators; and
- (c) air filtration equipment using liquid or solid adsorption agent.

Note: The above entry excludes equipment specially designed for fire fighting use and specially designed equipment for use by personnel in emergency evacuation procedures.

Materials encompassed by the term "Corrosion Resistant"

" For the purposes of this annex, "corrosion resistant" means where all surfaces that come in direct contact with the chemical(s) being processed are made from the following:

- (i) glass (including vitrified or enamelled coatings or glass lining);
- (ii) ceramics;
- (iii) ferrosilicons;
- (iv) titanium or titanium alloys - (some examples: Monel 10, Monel 11, titanium 20, titanium nitride 70, titanium nitride 90);
- (v) tantalum or tantalum alloys;
- (vi) zirconium or zirconium alloys;
- (vii) nickel or alloys with more than 40 per cent nickel by weight - (some examples: Alloy 400, AMS 4675, ASME SB164-B, ASTM B127, DIN2.4375, EN60, FM60, IN60, Hastelloy, Monel, K500, UNS NO4400, Inconel 600, Colmonoy Nr.6);
- (viii) alloys with more than 25 per cent nickel and 20 per cent chromium and/or copper by weight - (some examples: Alloy 825, Cunifer 30Cr, EniCu-7, IN 732 X, Inconel 800, Monel 67, Monel WE 187, Nicrofer 3033, UNS C71900);
- (ix) graphite or carbon/graphite (a composite consisting of amorphous carbon and graphite in which the graphite content is 8 per cent or more by weight);
- (x) fluoropolymers - (some examples: Aclar, Aflex COP, Aflon COP 88, F 40, Flurorex, Florlon, Floroplast, Neoflon, ETFE, Teflon, Tetzol, PVDF, PVF₂, PFA, PTFE, PE TFE 500 LZ, Halar; Viton A);
- (xi) silver.

**Revised Appendix To Annex III of the Plan for ongoing
monitoring and verification.**

Items to be notified under the Export / Import Mechanism approved by SCR1051

Provisions related to Biological Items

1. Microorganisms, other organisms, toxins or genetic material, as specified in List 1 (Explanatory Note, see attached).

Microorganisms means bacteria (including mycoplasma, and rickettsiae), viruses, or fungi, whether natural, enhanced or modified, either in the form of isolated live cultures, including live cultures in dormant form or in dried preparations, or as material including living material which has been deliberately inoculated or contaminated with such cultures.

Toxins include purified or crude material.

2.1 (Commodity Designator Code: BA002100)

Facilities, rooms or other enclosures that meet the physical containment criteria for P3 or P4 (BL3, BL4, L3, L4) biological containment as specified in the WHO Laboratory Biosafety Manual (Geneva, 1993).

2.2 (Commodity Designator Code: BA002200)

Biological safety cabinets, which allow manual operations to be performed within, whilst providing an equivalent to Class I, II or III biological protection, as specified in the WHO Laboratory Biosafety Manual (Geneva, 1993) as follows:

Class I cabinet: an open-fronted, ventilated cabinet for personal protection with an unrecirculated inward air flow away from the operator. It is fitted with a HEPA filter to protect the environment from a discharge of microorganisms;

Class II cabinet: an open-fronted, ventilated cabinet for personal, product and environmental protection, which provides an inward air flow and HEPA-filtered supply and exhaust air. There are two main variations: the Class IIA type recirculates 70 per cent of the air; the Class IIB type recirculates 30 percent of the air; and

Class III cabinet: a totally enclosed ventilated cabinet, which is gas-tight and is maintained under negative air pressure. The supply air is HEPA-filtered and the exhaust air is passed through two HEPA filters in series. Work is performed with attached long-sleeved gloves.

Kits to upgrade Class I biosafety cabinets to Class II or III.

Specially designed long sleeved gloves for Class III biosafety cabinet.

2.3 (Commodity Designator Code: BA002300)

Flexible film isolators, glove boxes, anaerobic chambers, dry boxes and secondary containment systems using HEPA air filtration, and having access ports for control, manipulation and decontamination.

2.4 (Commodity Designator Code: BA002400)

HEPA filters of a frame area of 0.0625 m² or greater and which have a DOP rating of 99.997 % (at 0.3 micron) or higher.

2.5 (Commodity Designator Code: BA002500)

Autoclaves designed to sterilize infectious material, with an internal volume equal to 1.0 m³ or greater.

2.6 (Commodity Designator Code: BA002600)

Positive pressure air-fed suits, half suits, helmets and respirators designed for biological use.

3.1 (Commodity Designator Code: BA003100)

Fermenters, bioreactors, chemostats, and continuous flow fermentation systems with a vessel capacity of 50 litres or more and the following specially designed components:

top plates;
vessels;
pH probes; and
pO₂ probes.

3.2 (Commodity Designator Code: BA003200)

Specially designed tissue culture cultivation vessels in which each vessel has an effective growth surface area of 450cm² or greater.

3.3 (Commodity Designator Code: BA003300)

Orbital or reciprocal shakers with a total flask capacity greater than 250 litres, designed for use with biological material.

Shaking incubators with a total flask capacity greater than 250 litres, designed for use with biological material.

4.1 (Commodity Designator Code: BA004100)

Centrifugal separators (or decanters) designed for use with biological material capable of continuous operation at a flow rate of 50 litres per hour or greater and specially designed rotors therefor.

4.2 (Commodity Designator Code: BA004200)

Batch centrifuges with a rotor capacity of 25 litres or greater, designed for use with biological material.

4.3 (Commodity Designator Code: BA004300)

Cross-flow and tangential filtration equipment designed for use with biological material with a filter area equal to or greater than 2m² and component filter cartridges therefor.

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4.4 (Commodity Designator Code: BA004400)

Spray drying equipment designed for use with biological material and the following specially designed components:

Spray/atomiser unit;
Cyclones;
Classifiers; and
Electronic control units.

4.5 (Commodity Designator Code: BA004500)

Freeze-drying (lyophilisation) equipment with a condenser capacity greater than 5 kg of ice in 24 hours, and specially designed vacuum chambers therefor.

4.6 (Commodity Designator Code: BA004600)

Size reduction equipment (including milling and grinding equipment) capable of producing powders with a mean particle size of 15 microns or less, and the following specially designed components:

Grinding head;
Milling head;
Milling body;
Grinder; and
Classifier.

5. (Commodity Designator Code: BA005000)

Formulated powdered complex growth media prepackaged in a container size of 5 Kg or greater.

Formulated concentrated liquid complex growth media prepackaged in a container size of 5 litres or greater.

Microbiological grade yeast extract when prepackaged in a container size of 5 Kg or greater.

6.1 (Commodity Designator Code: BA006100)

Immunological assay systems for microorganisms, toxins, or genetic material in List 1, with specially designed reagents.

6.2 (Commodity Designator Code: BA006200)

Gene probe assay systems for micro-organisms, toxins, or genetic material in List 1, with specially designed reagents.

6.3 (Commodity Designator Code: BA006300)

Biological agent detection systems for microorganisms, toxins, or genetic material in List 1, designed for biological defense or civil defense applications.

6.4 (Commodity Designator Code: BA006400)

Nucleic acid sequencing equipment.

6.5 (Commodity Designator Code: BA006500)

Nucleic acid synthesizers.

6.6 (Commodity Designator Code: BA006600)

Electroporation or biolistics equipment.

6.7 (Commodity Designator Code: BA006700)

Thermal cyclers designed for use in molecular biology.

7.1 (Commodity Designator Code: BA007100)

Aircraft sprayers capable of dispersing aerosols with an ultimate mean size of 15 microns or less at a flow rate exceeding 1 litre of liquid suspension per minute or 10 g of dry material per minute, and the following specially designed components:

spray tanks;
certified pumps; and
spray nozzles.

7.2 (Commodity Designator Code: BA007200)

Aerosol disseminators (other than aircraft sprayers and foggers), capable of dispersing aerosols with an ultimate mean size of 15 microns or less at a flow rate exceeding 1 litre of liquid suspension per minute or 10 g of dry material per minute.

Note: This entry excludes dry powder fire extinguishers.

7.3 (Commodity Designator Code: BA007300)

Foggers including pulse jet disseminators capable of dispersing aerosols with an ultimate mean size of 15 microns or less at a flow rate exceeding 1 litre of liquid suspension per minute or 10 g of dry material per minute, and the following specially designed components:

head unit; and
nozzle assembly.

8.1 (Commodity Designator Code: BA008100)

Aerosolization drums, cabinets, chambers, rooms or other enclosures usable in the study of aerosols.

8.2 (Commodity Designator Code: BA008200)

Nose-only aerosolisation equipment but excluding devices for personal prophylaxis or therapy for medical conditions.

8.3 (Commodity Designator Code: BA008300)

Aerodynamic particle-sizing equipment.

9. (Commodity Designator Code: BA009000)

Vaccines to microorganisms or toxins described in List 1 (excluding subcategories 1.4, 1.5, and 1.6) for use with humans and animals except for the following entries:

- Shigella dysenteriae
- Foot and mouth disease virus
- Lyssa virus
- Newcastle disease virus
- Peste des petits ruminants virus
- Rinderpest virus
- Yellow fever virus

Note: Vaccines containing viable microorganisms included in List 1 are notifiable under the List 1 entry.

10. (Commodity Designator Code: BA010000)

Documents, information, software or technology for the design, development, use, storage, manufacture, maintenance or support of entries 1 to 9 above, excluding that in the public domain, published basic scientific research or the minimum necessary for the use of the goods detailed in entries 1 to 9.

NOTE : "Document" means blueprints, plans, diagrams, models, formulae, tables, engineering designs or specifications, manuals or instructions, pertaining to micro-organisms, toxins and genetic material except those containing information generally available to the public.

Explanatory Note

LIST 1 - Microorganisms, Viruses and Toxins Subject to Notification under the Export/Import Monitoring Mechanism

1.1 Microorganisms

Entry Number	Name	Other Names	Commodity Designator Code
1.1.1	<i>Bacillus anthracis</i>		BA001101
1.1.2	<i>Bacillus cereus</i>		BA001102
1.1.3	<i>Bacillus licheniformis</i>		BA001103
1.1.4	<i>Bacillus megaterium</i>		BA001104
1.1.5	<i>Bacillus pumilus</i>		BA001105
1.1.6	<i>Bacillus subtilis</i>		BA001106
1.1.7	<i>Bacillus thuringiensis</i>		BA001107
1.1.8	<i>Bartonella quintana</i>	<i>Rochalimaea quintana</i> , <i>Rickettsia quintana</i>	BA001108
1.1.9	<i>Brucella abortus</i>		BA001109
1.1.10	<i>Brucella melitensis</i>		BA001110
1.1.11	<i>Brucella suis</i>		BA001111
1.1.12	<i>Burkholderia mallei</i>	<i>Pseudomonas mallei</i>	BA001112
1.1.13	<i>Burkholderia pseudomallei</i>	<i>Pseudomonas pseudomallei</i>	BA001113
1.1.14	<i>Chlamydia psittaci</i>		BA001114
1.1.15	<i>Clostridium botulinum</i>		BA001115
1.1.16	<i>Clostridium perfringens</i>		BA001116
1.1.17	<i>Coxiella burnetii</i>		BA001117
1.1.18	<i>Erwinia amylovora</i>		BA001118
1.1.19	<i>Escherichia coli</i> O157:H7		BA001119
1.1.20	<i>Francisella tularensis</i>		BA001120
1.1.21	<i>Mycoplasma mycoides</i>		BA001121
1.1.22	<i>Ralstonia solanacearum</i>		BA001122
1.1.23	<i>Rickettsia prowazekii</i>		BA001123
1.1.24	<i>Rickettsia rickettsii</i>		BA001124
1.1.25	<i>Salmonella typhi</i>	<i>Salmonella enterica</i> var <i>typhi</i>	BA001125
1.1.26	<i>Serratia marcescens</i>		BA001126
1.1.27	<i>Shigella dysenteriae</i>		BA001127
1.1.28	<i>Staphylococcus aureus</i>		BA001128
1.1.29	<i>Vibrio cholerae</i>		BA001129
1.1.30	<i>Xanthomonas albilineans</i>		BA001130
1.1.31	<i>Xanthomonas campestris</i> pv. <i>citri</i>	<i>Xanthomonas campestris</i> pv. <i>citri</i> types A, B, C, D, E; <i>Xanthomonas citri</i> ; <i>Xanthomonas campestris</i> pv. <i>aurantifolia</i> ; <i>Xanthomonas campestris</i> pv. <i>Citrumelo</i>	BA001131
1.1.32	<i>Yersinia pestis</i>	<i>Yersinia pseudotuberculosis</i> var <i>pestis</i>	BA001132

1.2 Viruses

Entry Number	Name	Other Names	Commodity Designator Code
1.2.1	African horse sickness virus		BA001201
1.2.2	African swine fever virus		BA001202
1.2.3	Avian influenza virus	Fowl plague virus	BA001203
1.2.4	Blue tongue virus		BA001204
1.2.5	Camel pox		BA001205
1.2.6	Chikungunya virus		BA001206
1.2.7	Congo-Crimean haemorrhagic fever virus		BA001207
1.2.8	Dengue fever virus		BA001208
1.2.9	Eastern equine encephalitis virus		BA001209
1.2.10	Ebola virus		BA001210
1.2.11	Enterovirus 70		BA001211
1.2.12	Foot and mouth disease virus		BA001212
1.2.13	Goat pox virus		BA001213
1.2.14	Hantaan virus		BA001214
1.2.15	Human influenza virus		BA001215
1.2.16	Infectious haemorrhagic conjunctivitis virus		BA001216
1.2.17	Japanese encephalitis virus		BA001217
1.2.18	Junin virus		BA001218
1.2.19	Kyasanus Forest virus		BA001219
1.2.20	Lassa fever virus		BA001220
1.2.21	Louping ill virus		BA001221
1.2.22	Lymphocytic choriomeningitis virus		BA001222
1.2.23	Lyssa virus	Rabies virus	BA001223
1.2.24	Machupo virus		BA001224
1.2.25	Marburg virus		BA001225
1.2.26	Monkey pox virus		BA001226
1.2.27	Murray Valley encephalitis virus		BA001227
1.2.28	Newcastle disease virus		BA001228
1.2.29	Nipah virus		BA001229
1.2.30	Oropouche virus		BA001230
1.2.31	Peste des petits ruminants virus		BA001231
1.2.32	Porcine herpes virus	Aujeszky's disease virus	BA001232
1.2.33	Powassan virus		BA001233
1.2.34	Rift Valley fever virus		BA001234
1.2.35	Rinderpest virus		BA001235
1.2.36	Rocia virus		BA001236
1.2.37	Rotaviruses		BA001237
1.2.38	Sheep pox virus		BA001238
1.2.39	Sin Nombre virus		BA001239
1.2.40	St. Louis encephalitis virus		BA001240
1.2.41	Sugar cane Fiji disease virus		BA001241
1.2.42	Swine fever virus	Hog cholera virus	BA001242
1.2.43	Swine influenza virus		BA001243
1.2.44	Swine vesicular disease	Porcine enterovirus type 9	BA001244
1.2.45	Teschen disease virus		BA001245
1.2.46	Tick-borne encephalitis virus	Russian Spring-Summer encephalitis virus	BA001246
1.2.47	Variola virus(es)	Smallpox virus	BA001247
1.2.48	Venezuelan equine encephalitis virus		BA001248
1.2.49	Vesicular stomatitis virus		BA001249
1.2.50	Western equine encephalitis virus		BA001250
1.2.51	White pox virus		BA001251
1.2.52	Yellow fever virus		BA001252

1.3 Toxins

Entry Number	Name	Other Names	Commodity Designator Code
1.3.1	Abrin(s)		BA001301
1.3.2	Aflatoxin(s)		BA001302
1.3.3	Botulinum toxin(s)		BA001303
1.3.4	Bungarotoxin(s)		BA001304
1.3.5	Ciguatera(s)		BA001305
1.3.6	Clostridium perfringens toxin(s)		BA001306
1.3.7	Conotoxin(s)		BA001307
1.3.8	Microcystin(s)	Vanoginosins, Cyanginosin	BA001308
1.3.9	Modeccin(s)		BA001309
1.3.10	Pseudomonas exotoxin(s)		BA001310
1.3.11	Ricin(s) [CAS No. 9009-86-3]	Ricins, Ricine	BA001311
1.3.12	Saxitoxin(s) [CAS No. 35523-89-8]	1H,10H-Pyrrolo[1,2-c]purine-10,10-diol, 2,6-diamino-4-[[[(aminocarbonyloxy)methyl]-3a,4,8,9-tetrahydro-, [3aS-(3a,4,4a,10aR*)]-, Saxitoxin hydrate, Mussel poison, Clam poison, Paralytic shellfish poison, Gonyaulax toxin, STX.	BA001312
1.3.13	Shiga toxin(s)		BA001313
1.3.14	Staphylococcus enterotoxin(s)	Staphylococcus aureus enterotoxin Staphylococcus aureus toxin	BA001314
1.3.15	Tetrodotoxin(s)		BA001315
1.3.16	Trichothecene toxin(s)		BA001316
1.3.17	Verotoxin(s)		BA001317
1.3.18	Volkensin(s)		BA001318

1.4 Fungi

Entry Number	Name	Other Names	Commodity Designator Code
1.4.1	Aspergillus flavus		BA001401
1.4.2	Aspergillus nidans		BA001402
1.4.3	Cochliobolus myabeanus	Helminthosporium oryzae	BA001403
1.4.4	Colletotrichum coffeanum var. virulans		BA001404
1.4.5	Dothistroma pini	Scirrhia pini	BA001405
1.4.6	Fusarium oxysporum		BA001406
1.4.7	Magnaporthe grisea	Pyricularia grisea, Pyricularia oryzae	BA001407
1.4.8	Microcyclus ulei	Dothidella ulei	BA001408
1.4.9	Peronospora hyoscyami de Bary f.sp. tabacina skaliczky	Peronospora hyoscyami de Bary f.sp. Adam skaliczky	BA001409
1.4.10	Puccinia graminis	Puccinia graminis f. sp. Tritici	BA001410
1.4.11	Puccinia striiformis	Puccinia glumarum	BA001411
1.4.12	Tilletia carnis		BA001412
1.4.13	Tilletia foetida		BA001413
1.4.14	Tilletia indica		BA001414

1.5 Other Organisms

Entry Number	Name	Other Names	Commodity Designator Code
1.5.1	Eukaryotic (non-microbial) organism which produce any listed toxins		BA001501

1.6 Genetically Modified Organisms

Entry Number	Name	Other Names	Commodity Designator Code
1.6.1	Genetically modified microorganisms listed above.		BA001601
1.6.2	Genetically modified microorganisms or genetic material containing nucleic acid sequences derived from any of the listed microorganisms, above or that contain nucleic acid sequences associated with pathogenicity determinants of any listed microorganism; or that contain nucleic acid sequences associated with any listed toxin.		BA001602
1.6.3	Genetically modified variants of eukaryotic (non-microbial) organisms which produce any listed toxin.		BA001603

Revised Annex IV of the Plan for Ongoing Monitoring and Verification

Items to be Notified Under the Export/Import Mechanism approved by SCR 1051

Provisions related to Missile items

A. Prohibited Items.

The prohibitions under the Plan (S/22871 Rev. 1 of 20 Oct 1991) apply to any ballistic missiles or missile delivery systems (referred as "missile systems") capable of a range greater than 150 kilometres regardless of payload, and to any related major parts, including surface-to-surface missiles, space launch vehicles, sounding rockets, cruise missiles, target drones, reconnaissance drones, and other unmanned air vehicle systems and such other items as are identified below as being prohibited.

B. Dual Use Items.

The following list contains equipment, other items and technologies capable of being used in the development, production, construction, modification or acquisition of missile systems capable of a range greater than 150 kilometers and shall therefore, in accordance with paragraph 40 of the Plan (S/22871 Rev. 1 20 Oct 1991), be subject to ongoing monitoring and verification.

1 (Commodity Designator code: MA010000)

Complete subsystems designed or modified for missile systems, and technologies, production facilities, and production equipment therefore, as follows:

Note: Re-entry vehicles and equipment designed or modified therefor, are prohibited.

1.1 (Commodity Designator code: MA011000)

Individual rocket stages

1.1.1 (Commodity Designator code: MA011100)

Solid- or liquid-propellant rocket engines

1.1.2 (Commodity Designator code: MA011200)

Ramjet/scramjet/pulse jet/combined cycle engines, including devices to regulate combustion, and components therefor

1.1.3 (Commodity Designator code: MA011300)

Hybrid rocket motors and components therefor

1.2 (Commodity Designator code: MA012000)

Guidance sets

1.3 (Commodity Designator code: None)

Thrust vector controls, as follows;

1.3.1 (Commodity Designator code: MA013100)

Flexible nozzles

1.3.2 (Commodity Designator code: MA013200)

Fluid or secondary gas injection systems

1.3.3 (Commodity Designator code: MA013300)

Movable engines or nozzles

1.3.4 (Commodity Designator code: None)

Deflection systems of the exhaust gas stream as follows:

1.3.4.1 (Commodity Designator code: MA013410)

Jet vanes

1.3.4.2 (Commodity Designator code: MA013420)

Probes

1.3.4.3 (Commodity Designator code: MA013430)

Jet avator

1.3.4.4 (Commodity Designator code: MA013430)

Thrust tabs

1.4 (Commodity Designator code: MA014000)

Warhead or weapon safing, arming, fuzing and firing mechanisms

2 (Commodity Designator code: None)

Propulsion components and equipment, including components, equipment, propellant and constituent chemicals for propellants usable in missile systems and technology, production facilities and production equipment, as follows:

2.1 (Commodity Designator code: MA021000)

Rocket-motor cases and production equipment therefor including interior lining, insulation and nozzles, and the technology, the production facilities and production equipment therefor; engines, including devices to regulate combustion, and components therefor.

2.2 (Commodity Designator code: MA022000)

Lightweight turbojet, turbofan and turbocompound engines that are small and fuel efficient, as follows:

a. Engines with both of the following characteristics:

- i. Maximum thrust greater than 400N (achieved un-installed) excluding civil certified engines with a maximum thrust greater than 8,890N (achieved un-installed), and
- ii. Specific fuel consumption of 0.15kg/N/hr or less (at sea level static and standard conditions); or

b. Engines designed or modified for missile systems, regardless of thrust or specific fuel consumption.

2.3 (Commodity Designator code: MA023000)

Production equipment also covers shear forming, and flow-forming machines, including machines combining the function of spin-forming and flow-forming, including components and software therefore, as follows:

- a. Which, according to the manufacturer's technical specification, are capable of being equipped with numerical control units or a computer control, even when not equipped with such units at delivery, and
- b. With more than two axes which are capable of being coordinated simultaneously for contouring control.

2.4 (Commodity Designator code: MA024000)

Staging, clustering, and separation mechanisms, and the technology, production facilities and production equipment therefore.

2.5 (Commodity Designator code: MA025000)

Liquid-propellant control systems and components therefore, including liquid and slurry propellant control systems, and components therefor, designed or modified to operate in vibration environments of more than 5 g RMS between 20 Hz and 2,000 Hz, and the technology, the production facilities and production equipment therefor and also including:

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2.5.1 (Commodity Designator code: MA025100)

Servo valves designed for flow rates of 5 litres per minute or greater, at an absolute pressure of 4,000 kPa (600 psi) or greater, with an actuator response time of less than 100 msec;

Note: Servo valves designed for flow rates of 24 litres per minute or greater, at an absolute pressure of 7,000 kPa (1,000 psi) or greater, with an actuator response time of less than 100 msec are prohibited.

2.5.2 (Commodity Designator code: MA025200)

Pumps, for liquid propellants, with shaft speeds equal to or greater than 6,000 RPM or with discharge pressures equal to or greater than 4,000 kPa (600 psi) or with a flow rate of 200 litres per minute or greater at atmospheric pressure.

Note: Pumps, for liquid propellants, with shaft speeds equal to or greater than 8,000 RPM or with discharge pressures equal to or greater than 7,000 kPa (1,000 psi) or 450 litres per minute or greater at standard atmospheric pressure are prohibited.

3 (Commodity Designator code: None)

Propellants and constituent chemicals for propellants, as follows:

3.1 (Commodity Designator code: None)

Propulsive substances:

3.1.1 (Commodity Designator code: MA031100)

Hydrazine with a concentration of more than 70 percent and its derivatives, as follows:

Monomethylhydrazine (MMH); hydrazine hydrate (also known as hydrazine monohydrate), diamine hydrate, and hydrazine aqueous.

3.1.2 (Commodity Designator code: MA031200)

Unsymmetric dimethylhydrazine; (UDMH)

3.1.3 (Commodity Designator code: MA031300)

Organic azides: diazidodecane, diazidohexane

3.2 (Commodity Designator code: MA032000)

Ammonium perchlorate and other solid oxidizers as follows:

Ammonium dinitramide (ADN), compounds of nitroform, dinitramides, nitramines, nitrocubanes

3.3 (Commodity Designator code: MA033000)

Spherical aluminium powder with particles of uniform diameter of less than 500×10^{-6} m (500 microns) and an aluminium content of 97 percent by weight or greater;

3.3.1 (Commodity Designator code: MA033100)

Metal fuels in particle sizes less than 500×10^{-6} m (500 microns), whether spherical, atomized, spheroidal, flaked or ground, consisting of 97 percent by weight or more of any of the following: zirconium*, beryllium, boron**, magnesium, and alloys of these.

*The natural content of hafnium in the zirconium (typically 2 percent to 7 percent) is counted with the zirconium.

** The threshold for boron is at 85 percent by weight or higher.

3.3.2 (Commodity Designator code: MA033200)

Nitramines, Cyclotetramethylenetetranitramine (HMX), Cyclotrimethylenetrinitramine (RDX)

3.3.3 (Commodity Designator code: MA033300)

Perchlorates, chlorates or chromates mixed with high energy fuel components such as powdered metals

3.3.4 (Commodity Designator code: MA033400)

Carboranes, decaboranes, pentaboranes and derivatives thereof.

3.3.5 (Commodity Designator code: None)

Liquid oxidizers, as follows:

3.3.5.1 (Commodity Designator code: MA033510)

Dinitrogen Trioxide

3.3.5.2 (Commodity Designator code: MA033520)

Nitrogen dioxide/ dinitrogen tetroxide

3.3.5.3 (Commodity Designator code: MA033530)

Dinitrogen pentoxide

3.3.5.4 (Commodity Designator code: MA033540)

Inhibited Red Fuming Nitric Acid (IRFNA)

3.3.5.5 (Commodity Designator code: MA033550)

Hydrogen peroxide with a concentration greater than 70 percent.

3.3.5.6 (Commodity Designator code: MA033560)

Compounds composed of fluorine and one or more of other halogens, oxygen or nitrogen.

3.3.6 (Commodity Designator code: None)

Polymeric substances as follows:

3.3.6.1 (Commodity Designator code: MA033610)

Carboxyl-terminated polybutadiene (CTPB)

3.3.6.2 (Commodity Designator code: MA033620)

Hydroxyl-terminated polybutadiene (HTPB)

3.3.6.3 (Commodity Designator code: MA033630)

Glycidyl azide polymer (GAP)

3.3.6.4 (Commodity Designator code: MA033640)

Polybutadiene-Acrylic Acid (PBAA)

3.3.6.5 (Commodity Designator code: MA033650)

Polybutadiene-acrylic acid-acrylonitrile (PBAN)

3.3.6.6 (Commodity Designator code: MA033660)

Oxetanes as follows:

Polymers of Nitratomethyl Methyl Oxetane (NIMMO), 3, 3 Bis-(Azido Methyl Oxetane) (BAMO), Azido Methyl Methyl Oxetane (AMMO)

3.3.6.7 (Commodity Designator code: MA033670)

Composite propellants including case-bonded propellants and propellants with nitrated binders

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3.3.6.7.1 (Commodity Designator code: MA033671)

Noncomposite propellants including double-base propellants

3.3.6.7.2 (Commodity Designator code: MA033672)Other high-energy-density propellants, with an energy density of 40×10^6 joules/kg or greater, e.g. boron slurry

3.4 (Commodity Designator code: None)

Other propellant additives and agents:

3.4.1 (Commodity Designator code: None)

Bonding and linking agents as follows:

3.4.1.1 (Commodity Designator code: MA034110)

Tris(1-(2-methyl) aziridiny) phosphine oxide (MAPO)

3.4.1.2 (Commodity Designator code: MA034120)

Trimesol-1(2-ethyl) aziridine (HX-868, BITA)

3.4.1.3 (Commodity Designator code: MA034130)

Tepanol (HX-878), (reaction product of tetraethylenepentamine, acrylonitrile and glycidol)

3.4.1.4 (Commodity Designator code: MA034140)

Tepan (HX-879), (reaction product of tetraethylenepentamine with acrylonitrile)

3.4.1.5 (Commodity Designator code: MA034150)

Polyfunctional aziridine amides with isophthalic, trimesic, isocyanuric, or trimethyladipic backbone with a 2-methyl or 2-ethyl aziridine group (HX-752, H-874 and (HX-877).

3.4.2 (Commodity Designator code: MA034200)

Catalysts and cross linking agents as follows:

isophorone diisocyanate, hexamethyl diisocyanide, dimeryl diisocyanate, trimethylol propane; and

3.4.2.1 (Commodity Designator code: MA034210)

Triphenyl Bismuth (TPB);

3.4.3 (Commodity Designator code: None)

Burning rate modifiers as follows:

3.4.3.1 (Commodity Designator code: MA034310)

Catocene

3.4.3.2 (Commodity Designator code: MA034320)

N-butyl ferrocene

3.4.3.3 (Commodity Designator code: MA034330)

Butacene

3.4.3.4 (Commodity Designator code: MA034340)

Any other ferrocene derivatives

3.4.4 (Commodity Designator code: None)

Nitrate esters and nitratoplasticizers as follows:

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3.4.4.1 (Commodity Designator code: MA034410)

Triethylene glycol dinitrate (TEGDN)

3.4.4.2 (Commodity Designator code: MA034420)

Trimethylethane trinitrate (TMETN)

3.4.4.3 (Commodity Designator code: MA034430)

1, 2, 4-butanetriol trinitrate (BTTN)

3.4.4.4 (Commodity Designator code: MA034440)

Diethylene glycol dinitrate (DEGDN)

3.4.5 (Commodity Designator code: None)

Stabilizers as follows:

3.4.5.1 (Commodity Designator code: MA034510)

2-nitrodiphenylamine (also known as 2-NDPA), phenylnaphthylamine

3.4.5.2 (Commodity Designator code: MA034520)

N-methyl-p-nitroaniline (MNA)

4 (Commodity Designator code: None)

Production technology or production equipment for missile propellants and propellant constituents and specially designed components therefor, as follows:

4.1 (Commodity Designator code: MA041000)

Production technology and production equipment for the handling or acceptance testing of liquid propellants or propellant constituents described in item 3.

4.2 (Commodity Designator code: MA042000)

Production, handling, mixing, curing, casting, pressing, machining, extruding or acceptance testing of solid propellants or propellant constituents described in item 3, including:

4.2.1 (Commodity Designator code: MA042100)

Batch mixers, with all of the following characteristics:

- a. Capable of mixing under vacuum in the range of zero to 13.326 kPa (1.933 psi); and
- b. Capable of controlling the temperature of the mixing chamber;
- c. With a total volumetric capacity of 110 litres or more;
- d. With at least one mixing/kneading shaft mounted off-centre

Specially designed components for the above batch mixers as follows:

Planetary drive systems,
spare blades, and
spare bowls.

Note: Such batch mixers with a total volumetric capacity of more than 210 litres are prohibited.

Note: Continuous mixers with the same pressure and temperature characteristics as item 4.2.1 and with two or more mixing/kneading shafts and capacity to open the mixing chamber are also prohibited.

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4.2.2 (Commodity Designator code: MA042200)

Equipment for the production of atomized or spherical metallic powder less than 500×10^{-6} m (500 microns) in a controlled environment as follows;

- a. Plasma generators (high frequency arc-jet) usable for obtaining sputtered or spherical metallic powders with organization of the process in an argon-water environment;
- b. Electroburst equipment usable for obtaining sputtered or spherical metallic powders with organization of the process in an argon-water environment;
- c. Equipment usable for the "production" of spherical aluminium powders by powdering a melt in an inert medium (e.g. nitrogen).

4.2.3 (Commodity Designator code: MA042300)

Fluid energy mills usable for grinding or milling ammonium perchlorate, RDX or HMX and ammonium perchlorate hammer and pin mills.

4.2.4 (Commodity Designator code: MA042400)

Dryers designed for the drying of ammonium perchlorate or other energetic materials. This includes both batch and continuous drying systems.

5 (Commodity Designator code: None)

Guidance and control equipment, flight control systems, and avionics equipment, as follows:

5.1 (Commodity Designator code: MA051000)

Gyroscopes, accelerometers and other inertial equipment, including instrumentation, navigation and direction finding equipment and systems, and production and test equipment therefor, as follows, and components and software therefor:

Note: Continuous output accelerometers or gyros of any type, designed to function at acceleration levels greater than 100 g, are prohibited.

5.1.1 (Commodity Designator code: MA051100)

Integrated flight instrument systems, including gyrostabilizers or automatic pilots and integration software therefor, usable in missile systems.

5.1.2 (Commodity Designator code: MA051200)

Gyro-astro compasses and other devices which derive position or orientation by means of automatically tracking celestial bodies or satellites.

5.2 (Commodity Designator code: MA052000)

Accelerometers with a threshold of 0.5 g or less, or a linearity error of less than 0.25 percent of full scale output, or both, designed for use in inertial navigation systems or in guidance systems of all types except those specially designed and developed as MWD (Measurement While Drilling) Sensors for use in downhole well service operations;

5.3 (Commodity Designator code: MA053000)

All types of gyros usable in missile systems, with a rated drift rate stability of less than 5 degrees (1 sigma or rms) per hour in a 1 g environment.

5.3.1 (Commodity Designator code: MA053100)

Inertial or other equipment using;

- a. accelerometers with a threshold of 0.5 g or less, or a linearity error of less than 0.25 percent of full scale output, or both, designed for use in inertial navigation systems or in guidance systems of all types, except those specially designed and developed as MWD (Measurement While Drilling) Sensors for use in downhole well service operations; or
- b. gyros with a rated drift rate stability of less than 5 degrees (1 sigma or rms) per hour in a 1 g environment; and systems incorporating such equipment, and integration software therefor.

5.4 (Commodity Designator code: MA054000)

Test, calibration, alignment, and production equipment as follows; for items specified in Integrated flight instrument systems, including gyrostabilizers or automatic pilots and integration software therefor, usable in missile systems; and inertial or other equipment using;

- a. accelerometers with a threshold of 0.5 g or less, or a linearity error of less than 0.25 percent of full scale output, or both, designed for use in inertial navigation systems or in guidance systems of all types except those specially designed and developed as MWD (Measurement While Drilling) sensors for use in downhole well service operations; or
- b. gyros described by a rated drift rate stability of less than 5 degrees (1 sigma or rms) per hour in a 1 g environment; and systems incorporating such equipment, and integration software.

5.4.1 (Commodity Designator code: MA054100)

For laser gyro equipment, the following equipment used to characterize mirrors, with the threshold accuracy shown or better.

5.4.2 (Commodity Designator code: MA054200)

Scatterometer (10 ppm)

5.4.3 (Commodity Designator code: MA054300)

Reflectometer (50 ppm)

5.4.4 (Commodity Designator code: MA054400)

Profilometer (5 Angstroms)

5.5 (Commodity Designator code: None)

Other inertial equipment;

5.5.1 (Commodity Designator code: MA055100)

Inertial Measurement Unit (IMU) Module Tester

5.5.1.1 (Commodity Designator code: MA055110)

IMU Platform Tester

5.5.1.2 (Commodity Designator code: MA055120)

IMU Stable Element Handling Fixture

5.5.1.3 (Commodity Designator code: MA055130)

IMU Platform Balance fixture

5.5.2 (Commodity Designator code: MA055200)

Gyro Tuning Test Station

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5.5.3 (Commodity Designator code: MA055300)**Gyro Dynamic Balance Station**

5.5.4 (Commodity Designator code: MA055400)**Gyro Run-In/Motor Test station**

5.5.5 (Commodity Designator code: MA055500)**Gyro Evacuation and Filling Station**

5.5.6 (Commodity Designator code: MA055600)**Centrifuge Fixture for Gyro Bearings**

5.5.7 (Commodity Designator code: MA055700)**Accelerometer Axis Align Station**

5.5.8 (Commodity Designator code: MA055800)**Accelerometer Test Station**

6 (Commodity Designator code: None)

Flight control systems and technology, as follows, designed or modified for use in missile systems and the test, calibration, and alignment equipment therefor:

6.1 (Commodity Designator code: MA061000)

Hydraulic, mechanical, electro-optical, or electro-mechanical flight control systems (including fly-by-wire systems);

6.2 (Commodity Designator code: MA062000)

Attitude control equipment;

6.2.1 (Commodity Designator code: MA062100) -

Design technology for integration of air vehicle fuselage, propulsion system and lifting control surfaces to optimize aerodynamic performance throughout the flight regime of an unmanned air vehicle;

6.2.1.1 (Commodity Designator code: MA062200)

Design technology for integration of flight control, guidance, and propulsion data into a flight management system for optimization of rocket system trajectory.

6.2.2 (Commodity Designator code: MA062200)

Avionics equipment, as follows:

1. Terrain contour mapping equipment;
2. Scene mapping and correlation (both digital and analog) equipment;
3. Doppler navigation radar equipment;
4. Passive interferometer equipment;
5. Imaging sensor equipment (both active and passive) technology and components, as follows, designed or modified for use in missile systems, and software therefore.

6.2.2.1 (Commodity Designator code: MA062210)

Radar and laser radar systems, including altimeters;

6.2.2.2 (Commodity Designator code: MA062220)

Passive sensors for determining bearings to specific electromagnetic sources (direction finding equipment) or terrain characteristics;

6.2.2.3 (Commodity Designator code: MA062230)

Satellite navigation systems such as GPS, Magellan, GLONASS, or Galileo, capable of providing navigation information at speeds in excess of 515 m/sec (1,000 nautical miles/hour) and at altitudes in excess of 18 km (60,000 feet); or

6.2.2.4 (Commodity Designator code: MA062240)

Satellite navigation systems designed or modified for use with missile systems.

6.2.2.5 (Commodity Designator code: MA062250)

Electronic assemblies and components designed, modified, tested, certified, or screened for military use and operation at temperatures in excess of 125° C.

6.2.3 (Commodity Designator code: MA062300)

Design technology for protection of avionics and electrical subsystems against electromagnetic pulse (EMP) and electromagnetic interference (EMI) hazards from external sources, as follows:

6.2.3.1 (Commodity Designator code: MA062400)

Design technology for shielding systems;

6.2.3.2 (Commodity Designator code: MA062411)

Design technology for the configuration of hardened electrical circuits and subsystems;

6.2.4 (Commodity Designator code: MA062412)

Determination of hardening criteria for; the shielding of avionics and electrical subsystems against electromagnetic pulse (EMP) and electromagnetic interference (EMI) hazards from external sources, the design criteria for shielding systems, and the configuration of hardened electrical circuits and subsystems.

7 (Commodity Designator code: None)

Equipment and technology for the production of structural composites designed or modified for use in missile systems, as follows, and components, accessories and software therefor, and structural materials usable in missile systems as follows:

7.1 (Commodity Designator code: MA071000)

Filament winding machines for which the motions for positioning, wrapping and winding fibres are capable of being coordinated and programmed in three or more axes, designed to fabricate composite structures or laminates from fibrous or filamentary materials, and coordinating and programming controls;

7.1.1 (Commodity Designator code: MA071100)

Tape-laying machines for which the motions for positioning and laying tape and sheets are capable of being coordinated and programmed in two or more axes;

7.1.2 (Commodity Designator code: MA071200)

Multi-directional, multi-dimensional weaving machines or interlacing machines, including adapters and modification kits for weaving, interlacing or braiding fibres to manufacture composite structures, except textile machinery not modified for the above end uses;

7.1.3 (Commodity Designator code: None)

Equipment designed or modified for the production of fibrous or filamentary materials as follows:

7.1.3.1 (Commodity Designator code: MA071310)

Equipment for converting polymeric fibres (e.g. polyacrylonitrile, rayon or polycarbosilane) including special provision to strain the fibre during heating;

7.1.3.2 (Commodity Designator code: MA071320)

Equipment for the vapour deposition of elements or compounds on heated filament substrates; and

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7.1.3.3 (Commodity Designator code: MA071330)**Equipment for the wet-spinning of refractory ceramics (such as aluminium oxide)**

7.1.3.4 (Commodity Designator code: MA071340)**Equipment designed or modified for special fibre surface treatment and equipment designed or modified for producing prepregs and preforms, including:****7.1.3.4.1 Rollers;****7.1.3.4.2 Tension stretchers;****7.1.3.4.3 Coating equipment;****7.1.3.4.4 Cutting equipment; and****7.1.3.4.5 Clicker dies.**

7.1.3.5 (Commodity Designator code: MA071350)**Technical data (including processing conditions) and procedures for the regulation of temperature, pressures or atmosphere in autoclaves or hydroclaves in the production of composites or partially processed composites.**

7.1.3.5 (Commodity Designator code: MA071350)**Components and accessories for the equipment to produce structural composites, fibres, prepregs or preforms, as follows: moulds, mandrels, dies, fixtures and tooling for the preform pressing, curing, casting, sintering or bonding of composite structures, laminates and manufactures thereof.**

8 (Commodity Designator code: None)

Structural materials designed for use in missile systems as follows:

8.1 (Commodity Designator code: MA081000)**Composite structures, laminates, and manufactures thereof, designed or modified for missile systems or the subsystems in item 2.1, and resin impregnated fibre prepregs using resins with a glass transition temperature (T_g), after cure, exceeding 145° C as determined by ASTM D4065 or national equivalents, and metal-coated fibre preforms therefor, made either with organic matrix or metal matrix utilizing fibrous or filamentary reinforcements with a specific tensile strength greater than 7.62×10^4 m (3×10^6 inches) and a specific modulus greater than 3.18×10^6 m (1.25×10^6 inches);**

8.1.1 (Commodity Designator code: MA081100)**Resaturated pyrolyzed (i.e., carbon-carbon) materials designed for missile systems;**

8.1.2 (Commodity Designator code: MA081200)**Fine grain recrystallized bulk graphites (with a bulk density of at least 1.72 g/cc measured at 15° C and having a particle size of 100×10^{-6} m (100 microns) or less), pyrolytic, or fibrous reinforced graphites usable for rocket nozzles and reentry vehicle nose tips;**

8.1.3 (Commodity Designator code: MA081300)**Ceramic composite materials (dielectric constant less than 6 at frequencies from 100 Hz to 10,000 MHz) for use in missile radomes, and bulk machinable silicon carbide reinforced unfired ceramic usable for nose tips;**

8.1.4 (Commodity Designator code: MA081400)**Tungsten, molybdenum and alloys of these metals in the form of uniform spherical or atomized particles of 500×10^{-6} m (500 microns), or less with a purity of 97 percent by weight;**

8.1.5 (Commodity Designator code: MA081500)

Maraging steels (steels generally with high nickel, very low carbon content and using substitutional elements or precipitates to produce age-hardening) with an ultimate tensile strength of 1.5×10^9 Pa or greater, measured at 20°C in the form of sheet, plate or tubing with a wall or plate thickness equal to or less than 5.0 mm (0.2 inch).

8.1.6 (Commodity Designator code: MA081600)

Nitrogen stabilized duplex stainless steel (N-DSS) having all of the following characteristics:

1. containing at least 18 percent by weight chromium and 4.5 - 8.0 percent by weight nickel;
2. a ferritic-austenitic microstructure (also referred to as a two-phase microstructure) of which at least 10 percent is austenite by volume (according to ASTM E-1181-87 or national equivalents); and
3. Having any of the following forms:
 - a. ingots or bars having a size of 100 mm or more in each dimension;
 - b. sheets having a width of 600 mm or more and a thickness of 3 mm or less;
or
 - c. tubes having an outer diameter of 600 mm or more and a wall thickness of 3 mm or less.

8.1.7 (Commodity Designator code: MA081700)

Titanium-stabilized duplex stainless steel (Ti-DSS) having all of the following characteristics:

1. containing 17.0 - 23.0 percent by weight chromium and 4.5 - 7.0 percent by weight nickel;
2. having a titanium content of greater than 0.10 percent by weight; and
3. a ferritic-austenitic microstructure (also referred to as a two-phase microstructure) of which at least 10 percent is austenite by volume (according to ASTM E-1181-87 or national equivalents); and
4. Having any of the following forms:
 - a. ingots or bars having a size of 100 mm or more in each dimension;
 - b. sheets having a width of 600 mm or more and a thickness of 3 mm or less; or
 - c. tubes having an outer diameter of 600 mm or more and a wall thickness of 3 mm or less

8.2 (Commodity Designator code: None)

Pyrolytic deposition and densification equipment and technology as follows:

8.2.1 (Commodity Designator code: MA082100)

Technology for producing pyrolytically derived materials formed on a mould, mandrel or other substrate from precursor gases which decompose in the 1,300° C to 2,900° C temperature range at pressures of 130 Pa (1 mm Hg) to 20 kPa (150 mm Hg) including technology for the composition of precursor gases, flow-rates and process control schedules and parameters;

8.2.2 (Commodity Designator code: MA082200)

Nozzles for the above processes;

8.2.3 (Commodity Designator code: MA082300)

Equipment and process controls, and software therefor, designed or modified for densification and pyrolysis of structural composites, including:

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8.2.3.1 (Commodity Designator code: MA082310)

Isostatic presses with a maximum working pressure of 69 MPa (10,000 psi) or greater and designed to achieve and maintain a controlled thermal environment of 600° C or greater, and possessing a chamber cavity with an inside diameter of 254 mm (10 inches) or greater.

8.2.3.2 (Commodity Designator code: MA082320)

Chemical vapour deposition furnaces designed or modified for the densification of carbon-carbon composites.

8.3 (Commodity Designator code: None)

Launch and ground support equipment, facilities and software designed or modified for missile systems, as follows:

8.3.1 (Commodity Designator code: MA083100)

Apparatus and devices designed or modified for the handling, control, activation and launching of missile systems;

8.3.1.1 (Commodity Designator code: MA083200)

Vehicles designed or modified for the transport, handling, control, activation and launching of missile systems;

8.3.2 (Commodity Designator code: MA083300)

Gravity meters (gravimeters), gravity gradiometers, and specially designed components therefor, designed or modified for airborne or marine use, and with a static or operational accuracy of 7×10^{-4} m/sec² (0.7 milligal) or better, and a time to steady-state registration of two minutes or less;

8.3.3 (Commodity Designator code: MA083400)

Telemetry and telecontrol equipment usable for missile systems;

8.3.4 (Commodity Designator code: MA083500)

Precision tracking systems, as follows:

8.3.4.1 (Commodity Designator code: MA083510)

Tracking systems using a code translator or transponder installed on the missile systems and either surface or airborne references or aviation satellite navigation systems to provide real time measurements of in-flight position and velocity;

Note: Tracking systems specified in item 8.3.4.1 with a range greater than 150km are prohibited.

8.3.4.2 (Commodity Designator code: MA083520)

Range instrumentation radars including associated optical/infrared trackers and the software therefor with an angular resolution better than 3 milli-radians (0.5 mils), and a range of 30 km or greater with a range resolution better than 10 metres RMS, and a velocity resolution better than 3 metres per second; and

Note: Range instrumentation radars specified above with a range greater than 150km are prohibited.

8.3.4.3 (Commodity Designator code: MA083530)

Software with post-flight, recorded data, for the determination of vehicle position throughout its flight path.

8.4 (Commodity Designator code: None)

Analog computers, digital computers or digital differential analyzers and analog-to-digital converters, as follows:

8.4.1 (Commodity Designator code: MA084100)

Analog computers, digital computers, or digital differential analysers designed for use in missile systems, having either of the following characteristics:

8.4.1.1 (Commodity Designator code: MA084110)

Analog computers, digital computers, or digital differential analysers rated for continuous operation at temperatures from below minus 45° C to above plus 55° C; or

8.4.1.2 (Commodity Designator code: MA084120)

Analog computers, digital computers, or digital differential analysers designed as ruggedized or radiation hardened;

8.4.2 (Commodity Designator code: MA084200)

Analog-to-digital converters, designed for missile systems, with either of the following characteristics:

8.4.2.1 (Commodity Designator code: MA084210)

Designed to meet military specifications for ruggedized equipment; or,

8.4.2.2 (Commodity Designator code: MA084220)

Designed, modified, tested, certified or screened for military use, and being one of the following types:

8.4.2.3 (Commodity Designator code: MA084230)

Analog-to-digital converter microcircuits, with a resolution of 8 bits or more or which are radiation-hardened; and are rated for operation in the temperature range from below minus 45° C to above plus 125° C; and are hermetically sealed;

8.4.2.4 (Commodity Designator code: MA084240)

Electrical input type analog-to-digital converter printed circuit boards or modules, having

- a. a resolution of 8 bits or more, and
- b. rated for operation from below minus 45° C to above plus 55° C, and
- c. which incorporate analog-to-digital converter microcircuits, with
 1. a resolution of 8 bits or more or
 2. which are radiation-hardened; and
 3. are rated for operation in the temperature range from below minus 45° C to above plus 125° C; and
 4. are hermetically sealed.

9 (Commodity Designator code: None)

Test facilities and equipment as follows, and software therefor:

9.1 (Commodity Designator code: None)

Vibration test systems and components therefor, as follows:

9.1.1 (Commodity Designator code: MA091100)

Vibration test systems using feedback or closed loop techniques and a digital controller, capable of vibrating a system at 10g RMS or more over the entire range 20 Hz to 2000 Hz and imparting forces of 25kN (5,625 lbs), measured "bare table", or greater;

9.1.1.1 (Commodity Designator code: MA085120)

Digital controllers, which use specially designed vibration test software, with a real-time bandwidth greater than 5 kHz and designed for use with vibration test systems using feedback or closed loop techniques and a digital controller, capable of vibrating a system at 10g RMS or more over the entire range 20 Hz to 2000 Hz and imparting forces of 25kN (5,625 lbs), measured "bare table", or greater;

9.1.1.2 (Commodity Designator code: MA091120)

Vibration thrusters (shaker units), with or without associated amplifiers, capable of imparting a force of 25kN (5,625 lbs), measured "bare table", or greater, and usable in vibration test systems using feedback or closed loop techniques and a digital controller, capable of vibrating a system at 10g RMS or more over the entire range 20 Hz to 2000 Hz and imparting forces of 25kN (5,625 lbs), measured "bare table", or greater;

9.1.1.3 (Commodity Designator code: MA091130)

Bump or shock test tables with or without their associated amplifiers, capable of imparting a force of at least 100g, or greater;

9.1.1.4 (Commodity Designator code: MA091140)

Test piece support structures and electronic units designed to combine multiple shaker units into a complete shaker system capable of providing an effective total force of 25kN (5,625 lbs), measured "bare table", or greater, and usable in vibration test systems using feedback or closed loop techniques and a digital controller, capable of vibrating a system at 10g RMS or more over the entire range 20 Hz to 2000 Hz and imparting forces of 25kN (5,625 lbs), measured "bare table", or greater.

9.1.2 (Commodity Designator code: MA091200)

Wind-tunnels;

9.1.3 (Commodity Designator code: MA091300)

Test benches/stands capable of handling solid or liquid propellant rockets or rocket motors of more than 10kN (2248 lbs) of thrust, or capable of simultaneously measuring the three axial thrust components;

9.1.4 (Commodity Designator code: MA091400)

Environmental chambers and anechoic chambers capable of;

- a. simulating the flight conditions at altitudes of 15,000meters or greater, or
- b. simulating acoustic environments at an overall sound pressure level of 140 dB or greater (referenced to 2×10^{-5} N per square metre) or with a rated power output of 4 kiloWatts or greater, or,
- c. capable of achieving temperatures of at least minus 50° C to plus 125° C, and
- d. are capable of being equipped with vibration thrusters (shaker units) or acoustic generators capable of generating vibration environments of 10 g RMS or greater between 20 Hz and 2,000 Hz imparting forces of 5kN (1124 lbs) or greater.

9.1.4.1 (Commodity Designator code: MA091410)

Accelerators except those specially designed for medical purposes, capable of delivering electromagnetic radiation produced by "Bremsstrahlung" from accelerated electrons of 2 MeV or greater, and systems containing those accelerators.

9.2 (Commodity Designator code: MA092000)

Software, or software with related specially designed hybrid (combined analogue/digital) computers, for modelling (including in particular the aerodynamic and thermodynamic analysis of the systems), simulation, or design integration of missile systems or subsystems.

9.3 (Commodity Designator code: MA093000)

Materials, devices, and software for reduced observables (e.g. radar reflectivity, ultraviolet/infrared signatures and acoustic signatures, i.e. stealth technology), for applications designed for missile systems or subsystems including:

9.3.1 (Commodity Designator code: MA093100)

Structural materials and coatings specially designed for reducing radar reflectivity by 10 dB or more;

9.3.2 (Commodity Designator code: MA093200)

Coatings, including paints, specially designed for reducing or tailoring reflectivity or emissivity in infrared or ultraviolet spectra by 10 dB or more;

9.3.3 (Commodity Designator code: MA093300)

Software or databases for analysis of signature reduction;

9.3.4 (Commodity Designator code: MA093400)

Radar cross section measurement systems.

9.4 (Commodity Designator code: None)

Material and devices for protecting missile systems against nuclear effects (e.g. Electromagnetic Pulse (EMP), X-rays, combined blast and thermal effects), as follows:

9.4.1 (Commodity Designator code: MA094100)

Radiation Hardened microcircuits and detectors capable of with standing

- a. a total irradiation dose of 1×10^5 rad Si; or
- b. prompt dose rate of 5×10^8 rad Si/s.

9.4.2 (Commodity Designator code: MA094200)

Radomes designed to withstand a combined thermal shock greater than 100 cal/sq cm accompanied by a peak over pressure of greater than 50 kPa.
